



Final
Data Summary Report
2011
Environmental Monitoring
Section 35
Lewis and Clark County, Montana

Applicability: Data Summary Report, Section 35	Effective Date: July 12, 2012	Owner: Alan Dreesbach
For most recent revision or additional information: https://www.portageinc.com/PortageNet/PDCS	Signature:	



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History of Revisions

Revision	Issue Date	Action	Description
0		New Document	Initial Issue



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ACRONYMS AND ABBREVIATIONS

DO	Dissolved Oxygen
DQO	Data Quality Objective
DSR	Data Summary Report
famsl	Feet Above Mean Sea Level
MDEQ	Montana Department of Environmental Quality
mg/l	milligrams per liter
MS	Matrix Spike
MS/MSD	Matrix Spike/Matrix Spike Duplicate
ORP	Oxygen Reduction Potential
Portage	Portage, Inc.
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SC	Specific Conductance
TRL	Target Reporting Limit
TerraGraphics	TerraGraphics Environmental Engineering, Inc.
UBMC	Upper Blackfoot Mining Complex
USEPA	US Environmental Protection Agency



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1. INTRODUCTION

Portage, Inc. (Portage) has prepared this Data Summary Report (DSR) for the Montana Department of Environmental Quality (MDEQ) under MDEQ Contract Number 407025, Task Order 10. The DSR presents the data associated with field sampling activities at the Upper Blackfoot Mining Complex (UMBC) within the northeast half of Section 35, Township 15 North, Range 7 West, Lewis and Clark County, Montana (Section 35) during 2011.

1.1 Site Location and Background

The UMBC is a mining district located approximately 15 miles east of Lincoln, Montana that contains the headwaters of the Blackfoot River. The Blackfoot River, a major tributary river to the Clark Fork and Columbia River watersheds, forms its headwaters at the UMBC. Section 35 is within the UMBC and is located northeast of Highway 279 and south of Highway 200 in moderately sloping, partially-timbered terrain. As shown in Figure 1, Section 35 is approximately five miles west-southwest of the Mike Horse Dam. Section 35 is being considered as a potential repository site to permanently encapsulate mine waste from the rest of the UMBC. Other possible uses of Section 35 include: a) acquisition of borrow soil, b) mine waste staging, or c) a composting facility. Additional site background information (including information on the site environmental setting and the results of previous studies) may be found in the Sampling and Analysis Plan (SAP) for Section 35, Lewis and Clark County, Montana (Portage, 2011).

1.2 2011 Sampling Activities

The purpose of the 2011 sampling effort was to collect surface water and groundwater environmental data to monitor the water quality and quantity at this location and document baseline hydrogeologic and environmental conditions at the site. Sampling at Section 35 was coordinated with sampling at other portions of the UMBC (performed under a separate MDEQ Task Order) and the results of that UMBC sampling is detailed in a separate DSR. At Section 35, four quarters of data were collected, the first quarter representing spring/pre-high flow conditions, the second representing high flow conditions, the third representing fall conditions, and the fourth representing winter conditions. Portage staff were responsible for all sampling activities summarized in this DSR, and Energy Laboratories, Inc. was the contract laboratory responsible for analysis of all project samples.

1.3 Report Organization

The contents of this DSR are briefly described below:

- Section 2 presents surface water and groundwater sampling methods.
- Section 3 presents the data quality assessment, including data validation results.
- Section 4 presents analytical results, comparisons of analytical results to applicable standards, groundwater elevation data, surface water discharge data, and discussion of results.
- Conclusions are discussed in Section 5 and references are cited in Section 6.



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- Appendix A contains the laboratory data reports.
- Appendix B contains copies of the data validation reports.
- Appendix C is copies of the field notes and logs.
- Appendix D contains the site photographs.
- Appendix E contains data logger graphical output.
- Appendix F is copies of calibration certifications.
- Appendix G is a copy of the MDEQ Purge Water Disposal Flowchart.
- Appendix H contains an electronic copy of the DSR and data logger electronic files on compact disk.

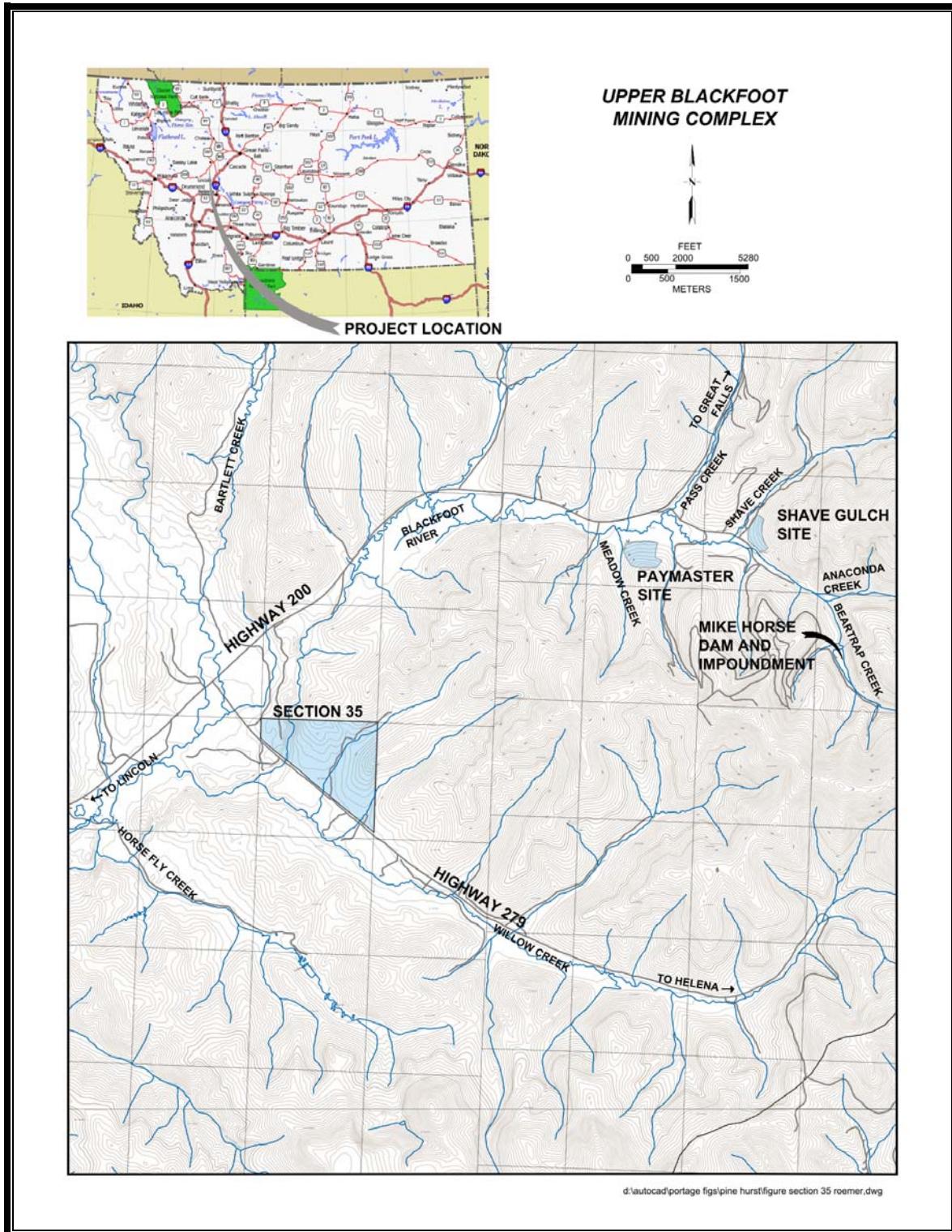


Figure 1. Section 35 general location map



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2. SAMPLING AND ANALYSIS PROCEDURES

2011 Section 35 sampling consisted of groundwater and surface water sampling at the locations shown on Figure 2. Groundwater and surface water samples were analyzed at Energy Laboratories, Inc. in Helena, Montana for total recoverable metals in groundwater and surface water, dissolved metals in groundwater (and for aluminum in surface water), physiochemical properties, common anions, and common cations. The analytical results were compared to the applicable standards in *Circular DEQ-7, Montana Numeric Water Quality Standards* (MDEQ, 2010a).

Other sampling activities at Section 35 include measuring groundwater elevation with a hand held electronic water meter and dedicated continuous data loggers, and measuring surface water flows. All field activities were performed in accordance with the project SAP. Section 4 of the SAP provides additional sampling objectives, methods, and procedural detail.

2.1 Groundwater Sampling and Analysis

Six groundwater monitoring wells were installed at Section 35 in 2010 for the purpose of establishing baseline groundwater quality at the site. Table 1 summarizes the groundwater quality monitoring stations. The locations of each station are shown on Figure 2.

Purging and sampling of the groundwater monitoring wells was performed with a non-dedicated bladder pump suitable for low-flow sampling in accordance with MDEQ's low flow sampling guidelines (MDEQ, 2005). During purging, the field water quality parameters specific conductance (SC), temperature, pH, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured with field instrumentation. Prior to well purging, the static water level and total depth of each well were measured with a water level meter. All field measurements were recorded in field logbooks and field forms, copies of which are provided in Appendix C.

2.2 Groundwater Elevation Data

Groundwater elevation data was collected from site monitoring wells during each sampling event using a water level meter to record static water levels in the well to the nearest 1/100th of a foot. Several piezometers are also installed at the site for the purpose of monitoring groundwater elevation. In site wells and some piezometers, electronic down-hole instrumentation is installed for the purpose of continuously monitoring changes in groundwater elevation. This data was collected during each sampling event and provided to MDEQ's project engineer for analysis. Groundwater elevation data may be used to develop an understanding of seasonal groundwater elevation and flow regimes at the site. Table 1 summarizes the groundwater elevation monitoring stations. The locations of each station are shown on Figure 2. The electronic data files for wells and piezometers equipped with continuous data loggers is attached in Appendix H. Appendix E includes a graphical representation of the data.

2.3 Surface Water Sampling and Analysis

Five surface water stations were monitored in 2011 for the purpose of establishing baseline surface water quality at the site. The surface water stations are located at the upgradient and downgradient Section 35 property boundaries on the Blackfoot River, Nora Creek, and mid-reach on an unnamed



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tributary to Willow Creek. Surface water samples were collected using the direct method to collect water samples directly into sample containers. The field water quality parameters, SC, pH, temperature, ORP, and DO were measured at each sampling location during each sampling event. Table 1 summarizes the surface water quality monitoring stations. The locations of each station are shown on Figure 2. All field measurements were recorded in field logbooks and field forms, copies of which are provided in Appendix C.

2.4 Surface Water Flow Measurement

In-stream measurements were collected during surface water sampling events for the purpose of calculating flow at each monitoring station. The area-velocity method using an electronic hand-held velocity meter and wading staff was used to collect in-stream data. Using the 60% of depth method wading technique, velocity profiles were measured at each station with the hand held equipment. Velocity profiles and the measured cross sectional area of the stream were then used to calculate an instantaneous discharge flow rate at the time of sampling.

2.5 Investigation Derived Waste

Sampling effort investigation derived waste (IDW) included purge water from groundwater well pumping and disposable sampling supplies (filters, scoops, and wipes). Purge water was disposed of according to DEQ's Purge Water Disposal Flowchart (attached as Appendix G). Historically groundwater monitoring wells in the UBMC, including wells within Section 35, have not encountered water with characteristics approaching those of a RCRA hazardous waste (with the exception of wells UMHMW-1S and UMHMW-2S, both of which are located near the Mike Horse Mine and were not part of this sampling effort). Based on this information, development water was land applied in the vicinity of the well in a manner that did not cause a discharge to surface water. Disposable sampling supplies were bagged and disposed of as municipal waste.

2.6 Deviations from the SAP

Deviations from the SAP occurred when conditions in the field prohibited sampling or required a change in sampling procedures. As discussed in Section 3.1.3, Completeness, there were four instances in which site monitoring wells were dry and the scheduled samples could not be collected. During the 2011 sampling effort, monitoring well MW-01 was artesian during the second and third quarter sampling events. Because of the artesian flow, a grab sample of the well water was collected directly from the flowing wellhead rather than using the bladder pump for sample collection. Dissolved metals sample filtering was accomplished with a peristaltic pump. There were no other deviations from the SAP during the 2011 sampling.



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Table 1. Section 35 groundwater and surface water samples and piezometer data collection points

Station ID	Laboratory Analyses	Sample Location
S35MW01	¹ Dissolved metals, total metals, cations, chloride, sulfate, acidity, total alkalinity, hardness, carbonate, bicarbonate, pH, conductivity, total dissolved solids, total suspended solids, transducer data	East of Nora Creek
S35MW02	Same as above, transducer data	Ridge east of Nora Creek
S35MW03	Same as above, transducer data	West of Nora Creek near Highway 279
S35MW04	Same as above, transducer data	East of Blackfoot River
S35MW05	Same as above, transducer data	East of Nora Creek near Highway 279
S35MW06	Same as above, transducer data	Near top of ridge east of Blackfoot River
S35MW07	Same as above, no transducer data	Duplicate of S35MW04
S35MW08	Same as above, no transducer data	Blank
S35MW09	Same as above, no transducer data	Rinsate of sampling equipment
S35PZ04	None (static water level only)	West of potential wetland
S35PZ05	None (transducer data only)	East of potential wetland
S35PZ10	None (static water level only)	Northeast corner of the site
S35PZ22	None (static water level only)	Ridge east of Nora Creek
S35SW01	² Dissolved metals, ¹ total metals, cations, chloride, sulfate, acidity, total alkalinity, hardness, carbonate, bicarbonate, pH, conductivity, total dissolved solids, total suspended solids	Nora Creek. Upstream of wetland and south of access road
S35SW02	Same as above	Nora Creek. Near NE corner of site. Upstream of S35SW02
S35SW03	Same as above	Blackfoot River. Western portion of the site. Upstream of S35SW04.
S35SW04	Same as above	Blackfoot River. Immediately upstream crossing of Highway 279. Downstream from S35SW03.
S35SW05	Same as above	Unnamed intermittent stream. Upstream from crossing Highway 279.
S35SW06	Same as above	Duplicate of S35SW01

¹Aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc.

²Aluminum

“MW” = monitoring well

“PZ” = piezometer

“SW” = surface water

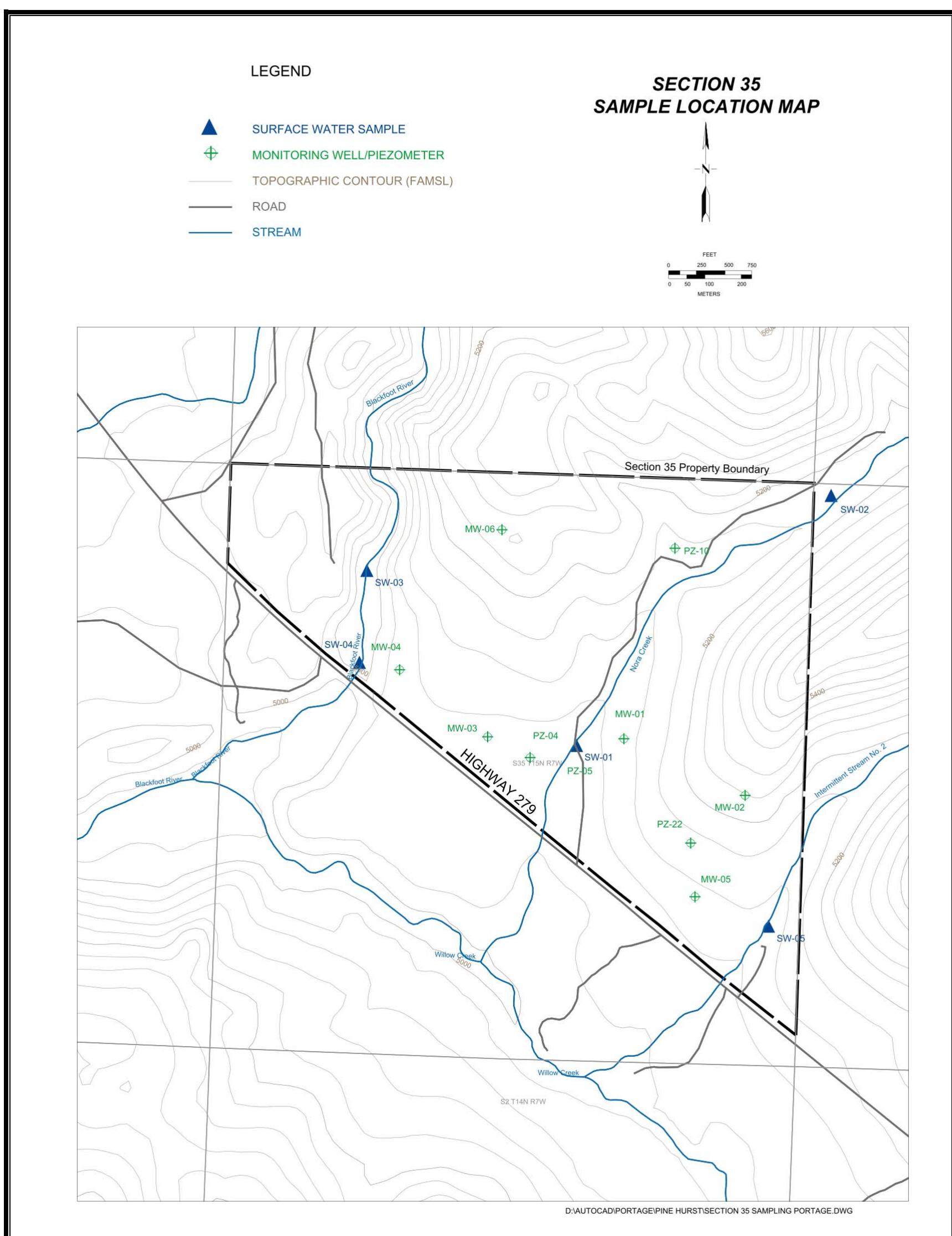


Figure 2. Section 35 monitoring locations



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3. DATA QUALITY ASSESSMENT

Section 4 of the Section 35 SAP presents the Quality Assurance Project Plan (QAPP) for 2011 field activities. The QAPP defines the data quality and QA objectives, and requirements for data validation. The data quality objectives (DQOs) are qualitative and quantitative statements that specify the quality of the data required for supporting sampling activities. The DQOs were prepared using USEPA guidance for the DQO process (USEPA 2006) and are summarized in Table 2. The QAPP also defines quantitative QA objectives that are evaluated against the laboratory data presented in this DSR. Quantitative QA objectives include calculated limits of control for data completeness, accuracy, and precision. Specific target reporting limits (TRLs) must also be achieved by the contract laboratory. The 2011 sampling data has also been subjected to a formal data validation process, including a review of laboratory performance criteria and sample-specific criteria.

Table 2. Section 35 summary of data quality objectives

Analysis	Location	Analysis Method	¹ USEPA Analytical Support Level	Media	Data Use
Metals	Laboratory	E200.2, E200.7, E200.8	III	GW/SW	SC, EA, ED
Acidity	Laboratory	A2310B	III	GW/SW	SC, EA, ED
Alkalinity, total as CaCO ₃	Laboratory	A2320B	III	GW/SW	SC, EA, ED
Hardness, total as CaCO ₃	Laboratory	A2340B	III	GW/SW	SC, EA, ED
Chloride	Laboratory	E300.0	III	GW/SW	SC, EA, ED
Carbonate	Laboratory	A2320B	III	GW/SW	SC, EA, ED
Bicarbonate	Laboratory	A2320B	III	GW/SW	SC, EA, ED
Sulfate	Laboratory	EPA 300.0	III	GW/SW	SC, EA, ED
Total Dissolved Solids	Laboratory	A2540D	III	GW/SW	SC, EA, ED
Total Suspended Solids	Laboratory	A2540C	III	GW/SW	SC, EA, ED
pH	Laboratory	A4500-HB	III	GW/SW	SC, EA, ED
Conductivity	Laboratory	A2510B	III	GW/SW	SC, EA, ED

EA = evaluation of alternatives

ED = engineering design

SC = site characterization

GW = monitoring well

SW = surface water

¹Meets MDEQ requirements (MDEQ, 2010b)



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3.1 Quality Assurance Objectives

The overall QA objective for the site is to produce well-documented data of known quality. To meet this objective, quantitative goals for data precision, accuracy, and completeness; qualitative goals for representativeness and comparability; and, TRLs for the analytical methods have been established in the project QAPP. The evaluation of quantitative and qualitative QA objectives is presented below. Table 3 summarizes the precision, accuracy, and completeness results.

3.1.1 Precision

Precision and accuracy are indicators of data quality. Generally, precision is a measure of the variability of a group of measurements compared to their mean value. Laboratory analytical precision is estimated by calculating the relative percent difference (RPD) between the analytical results from the laboratory matrix spike (MS) and matrix spike duplicate (MSD) samples and the field duplicate samples. There is no extra sample volume required for the laboratory to perform MS/MSD sample analysis.

The RPD (precision) between the analyte levels measured in the MS and MSD sample (or sample duplicates) is calculated using Equation (1).

$$RPD = \frac{MS - MSD}{0.5(MS - MSD)} \times 100\% \quad (1)$$

Where:

RPD = relative percent difference

MS = matrix spike

MSD = matrix spike duplicate.

The goal established for precision in the project QAPP is <20% RPD for metals and common anions (chloride and sulfate). For laboratory MS/MSD analysis the overall project RPD is 97.96%, resulting in 97.96% precision. For field duplicate samples there were 376 duplicate data points analyzed for the four quarters of sampling. Of the 376 field duplicate results, nine (2.4% of the duplicate results) duplicate points exhibited RPDs outside the prescribed <20% acceptance criteria, and 367 (97.6% of the duplicate results) exhibited RPDs within the prescribed acceptance criteria, resulting in 97.6% precision.

3.1.2 Accuracy

Accuracy is a measure of the bias in a measurement system. Analytical accuracy for laboratory data is assessed by evaluating matrix spike sample percent recovery, instrument calibration data, and laboratory control sample results.

$$\%R = \frac{(C_j - C_o)}{C_t} \times 100\% \quad (2)$$

Where:

%R = percent recovery



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C_j = measured concentration in spiked sample aliquot

C_o = measured concentration in unspiked sample aliquot

C_t = actual concentration of spike added.

Accuracy was estimated for site analytical data by calculating the percent recovery of laboratory MS samples using Equation (2). By this metric, the laboratory data is 99.30% accurate. Accuracy was also calculated for the validated laboratory data which includes data flagged because of missed holding times and poor MS/MSD recoveries. There were 2,704 data points associated with the four quarters of sampling in 2011. Of the 2,704 data points: 92 (3.4% of the total) were qualified either with a “J-,” “J+,” “J,” or “UJ” validation flag due to missed holding times or poor MS/MSD recoveries, and 2,612 (96.6% of the total) were left unqualified, resulting in 96.6% accuracy.

3.1.3 Completeness

Completeness is defined as an assessment of the amount of valid analytical data obtained from a measurement system compared to the amount of analytical data needed to achieve a particular statistical level of confidence. The percent completeness is calculated by dividing the number of samples with acceptable data by the total number of samples planned to be collected, and multiplying the result by 100. Equation (3) is used to determine completeness:

$$\%C = (V/T) \times 100\% \quad (3)$$

Where:

$\%C$ = percent completeness

V = number of measurements judged valid

T = total number of measurements.

For 2011 Section 35 monitoring, the QA objective for sample collection and laboratory data degree of completeness was >90%. A total of 60 water samples, 220 field water quality measurements, and 68 data logger downloads/static water measurements were scheduled for 2011 field sampling. Site monitoring wells were dry in four instances, reducing the total number of water samples collected to 56. During scheduled sampling and data collection, there were 29 instances of scheduled field water quality parameters not being collected because of malfunctioning equipment which reduced the total number of field parameters collected to 191. This results in a sample collection completeness of 93.3% and a field parameter collection completeness of 86.8%. All scheduled data logger downloads/static water measurements were collected resulting in a water level data completeness of 100%. The combined completeness of the field effort (samples, field parameters, and water level measurements) is 90.5%. Because all project analytical data was deemed useable after data validation, the completeness of the laboratory data packages is 100%.

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Table 3. Precision, accuracy, completeness summary

	Lab MS/MSD RPD	Field duplicates	All lab results	All field sampling/data collection
Precision	97.96	97.6%	----	----
Accuracy	99.3	----	96.6%	----
Completeness	----	----	100%	90.5%

3.1.4 Target Reporting Limits

The target reporting limits (TRLs) for water analyses are listed in Table 4. All TRLs are DEQ-7 required reporting values with the exception of cobalt and vanadium which are not listed in DEQ-7. TRLs for cobalt and vanadium are Energy Laboratories standard reporting limit for water analysis. The Energy Laboratories standard reporting limit was selected as the TRL for cobalt and vanadium because it is lower than the minimum required reporting value for analytical method 200.8 (USEPA 1994). The TRL is defined as the lowest concentration that needs to be reported for undiluted samples to obtain project objectives. For Section 35, 2011 sampling, the contract laboratory did not achieve the project TRL for cadmium in four instances (<0.00009 reported vs. <0.00008) All other TRLs were achieved.

Table 4. Section 35 target reporting limits for water analysis

Analyte	Analytical Method	¹ Reporting Limit Water (mg/L)
Aluminum	USEPA 200.8	0.03
Antimony	USEPA 200.8	0.003
Arsenic	USEPA 200.8	0.003
Barium	USEPA 200.8	0.005
Beryllium	USEPA 200.8	0.001
Cadmium	USEPA 200.8	0.00008
Chromium	USEPA 200.8	0.001
Cobalt	USEPA 200.8	0.01
Copper	USEPA 200.8	0.001
Iron	USEPA 200.8	0.05
Lead	USEPA 200.8	0.0005



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Table 4. continued

Analyte	Analytical Method	¹ Reporting Limit Water (mg/L)
Manganese	USEPA 200.8	0.005
Mercury	USEPA 200.8	0.00001
Nickel	USEPA 200.8	0.01
Selenium	USEPA 200.8	0.001
Silver	USEPA 200.8	0.0005
Thallium	USEPA 200.8	0.0002
Vanadium	USEPA 200.8	0.1
Zinc	USEPA 200.8	0.01

¹DEQ-7 required reporting value. Cobalt and vanadium are the Energy Laboratories standard reporting value for water.

3.1.5 Qualitative QA Objectives

Qualitative QA objectives include sample representativeness and comparability. Representativeness is the degree to which sample data represent the site conditions and comparability expresses the confidence with which one data set can be compared to another. All 2011 Section 35 sampling locations were selected to obtain representative water samples and proper sample collection, handling, and analysis procedures were utilized to ensure comparability. Field blanks performed in the field were analyzed by the contract laboratory and the results verified that cross contamination from laboratory supplied deionized water, sample containers, and laboratory handling procedures did not impact the analytical results. Rinsate blanks performed in the field were also analyzed by the contract laboratory and the results verified that cross contamination from sampling equipment did not impact the analytical results.

As part of Energy Laboratories internal QA program, trip blanks were analyzed for samples where mercury detection triggered ultra-low level mercury analysis of the sample. The trip blanks were prepared by Energy Laboratories and taped to the inside of the sample cooler prior to transport to the field. The trip blanks confirmed that not cross contamination because of sample transport of storage impacted the ultra-low level mercury analytical results.

3.2 Data Validation

Data validation was performed according to the *Final USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2004); USEPA Publication SW-846, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (USEPA 2008a); and *USEPA Guidance on Environmental Data Verification and Data Validation* (USEPA 2002a). The data validation reports also conform to MDEQ Data Validation Guidelines (MDEQ, 2010b).



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Data validation included verification of the following:

- Compliance with the SAP/QAPP.
- Proper sample collection and handling procedures.
- Holding times.
- Field QC results.
- Instrument calibration verification.
- Laboratory blank analysis.
- Detection limits.
- Laboratory duplicates.
- MS/MSD percent recoveries and relative percent differences.
- Surrogate percent recoveries.
- Data, event, completeness and format.
- Data qualifiers assigned by the laboratory.

In summary, the validation of laboratory data packages did not result in the rejection of any project data, but did result in additional data flags and qualifiers as described below. The complete data validation reports for individual laboratory data packages are attached in Appendix B.

3.2.1 First Quarter Summary

Three sample delivery groups (SDGs) were analyzed in the May 2011 sampling effort: H11050028, H11050015, and H11050031. Six surface water and eight groundwater samples were collected on 04/28/2011, 04/29/2011, and 04/30/2011. The surface water and groundwater samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total Alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total metals.

All associated pH sample results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times. The pH holding time is 24-hours and was exceeded because of the remoteness of the site in relation to the contract laboratory and the time it takes to transport samples from the field. Field pH measurements were collected at the time of sample collection to supplement the laboratory data.

The sulfate results for samples S35SW06, S35SW01, S35SW02, S35SW04, S35SW03, and S35SW05 have been qualified with a “J+” validation flag to denote the reported results are estimated with a high bias due to high MS and/or MSD recoveries.

The dissolved potassium results for sample S35SW05 and the total recoverable arsenic results for sample S35MW07 have been qualified with a “U” validation flag to denote the reported concentration is non-detect due to blank detections.



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A total of 22 sample data points have been qualified during data validation. Of the qualified sample data points: Two were assessed and qualified with a “U” validation flag, , six were assessed and qualified with a “J+” validation flag, and 14 were assessed and qualified with a “J-“ validation flag. The two data points qualified with a “U” validation flag are considered to be enforcement quality data. The 20 field sample data points that have been qualified with a “J+” or a “J-“validation flag are considered to be estimated quantities. No data was rejected or deemed unusable in this validation effort.

3.2.2 Second Quarter Summary

Two SDGs were analyzed in the June/July 2011 sampling effort: H11060300 and H11060355. Six surface water and nine groundwater samples were collected on 06/14/2011 and 06/17/2011. The surface water and groundwater samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total Alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total metals.

All associated pH sample results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times. The pH holding time is 24-hours and was exceeded because of the remoteness of the site in relation to the contract laboratory and the time it takes to transport samples from the field. Field pH measurements were collected at the time of sample collection to supplement the laboratory data.

The dissolved aluminum results for samples S35MW03, S35MW04, S35MW05, and S35MW07 have been qualified with a “J+” validation flag to denote the reported result is an estimate with a high bias due to high MS/MSD recoveries.

The total recoverable aluminum results for samples S35MW03, S35MW04, S35MW05, S35MW07, S35MW06, and S35MW02 have been qualified with a “J+” validation flag to denote the reported result is an estimate with a high bias due to high MS/MSD recoveries.

The total mercury results for samples S35SW01, S35SW06, and S35SW02 have been qualified with a “UJ” validation flag to denote the data is non-detect, and the reported concentration is an estimate due to exceeded holding times. These holding times were exceeded because of laboratory scheduling error.

The total recoverable mercury results for samples S35SW05, S35MW02, and S35MW05 have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to low MS/MSD recovery.

The total recoverable mercury for samples S35MW01, S35MW03, S35MW04, S35MW07, S35MW08, S35MW06, and S35MW09 have been qualified with a “UJ” validation flag to denote the data is non-detect, and the reported concentration is an estimate due to low MS/MSD recoveries.

The following sample results have been qualified with a “U” validation flag to denote the reported data is non-detect due to positive method blank detections:

- Total recoverable chromium for S35MW09.
- Dissolved iron for S35MW04 and S35MW09.



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- Dissolved manganese for S35MW06.
- Dissolved potassium for S35MW01 and S35MW05.
- Total recoverable potassium from S35MW01 and S35MW06.
- Dissolved sodium for S35MW07.
- Dissolved zinc for S35MW05.
- Total recoverable zinc for S35MW01.

A total of 49 sample data points have been qualified during data validation. Of the qualified sample data points: 11 were assessed and qualified with a “U” validation flag, ten were assessed and qualified with a “UJ” validation flag, ten were assessed and qualified with a “J+” validation flag, and 18 were assessed and qualified with a “J-“ validation flag. The 11 data points qualified with a “U” validation flag are considered to be enforcement quality data. The 38 field sample data points that have been qualified with a “J,” “J+,” “J-,” or a “UJ” validation flag are considered to be estimated quantities. No data was rejected or deemed unusable in this validation

3.2.3 Third Quarter Summary

Two SDGs were analyzed in the September/October 2011 sampling effort: H11090332 and H11090405. Six surface water and eight groundwater samples were collected 09/19/2011 to 09/22/2011. The surface water and groundwater samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total Alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total metals.

All associated pH sample results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times. The pH holding time is 24-hours and was exceeded because of the remoteness of the site in relation to the contract laboratory and the time it takes to transport samples from the field. Field pH measurements were collected at the time of sample collection to supplement the laboratory data.

The chloride results for samples S35MW08, S35MW09, S35MW01, S35MW03, S35MW06, S35MW04, and S35MW07 have been qualified with a “UJ” validation flag to denote the data is non-detect, and the reported concentration is an estimate due to low MS recovery.

A total of 21 sample data points have been qualified during data validation. Of the qualified sample data points: Seven were assessed and qualified with a “UJ” validation flag, and 14 were assessed and qualified with a “J-“ validation flag. The 21 field sample data points that have been qualified with a “J-“ or a “UJ” validation flag are considered to be estimated quantities. No data was rejected or deemed unusable in this validation

3.2.4 Fourth Quarter Summary

Two SDGs were analyzed in the December 2011 sampling effort: H11120150 and H11120194. Six surface water and seven groundwater samples were collected 12/10/2011, 12/12/2011, and

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12/13/2011. The surface water and groundwater samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total Alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total metals.

All associated pH sample results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times. The pH holding time is 24-hours and was exceeded because of the remoteness of the site in relation to the contract laboratory and the time it takes to transport samples from the field. Field pH measurements were collected at the time of sample collection to supplement the laboratory data.

The total recoverable copper result for sample S35SW06 and the TDS result for sample S35MW09 have been qualified with a “U” validation flag to denote the reported concentration is non-detect due to method blank detections.

A total of 15 sample data points have been qualified during data validation. Of the qualified sample data points: Two were assessed and qualified with a “U” validation flag, and 13 were assessed and qualified with a “J-“ validation flag. The two data points qualified with a “U” validation flag are considered to be enforcement quality data. The 13 field sample data points that have been qualified with a “J-“ validation flag are considered to be estimated quantities. No data was rejected or deemed unusable in this validation effort.



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4. ANALYTICAL RESULTS

Tabular analytical result summaries and summary discussion are provided in the following sections. All analytical data was compared to the applicable standards in DEQ-7. Groundwater sample results are compared to the human health standards while surface water sampling results are compared to both human health and aquatic life standards. The raw analytical data packages are provided in Appendix A.

4.1 Groundwater

The metals analyzed for Section 35 monitoring wells are aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc. The cations included are: calcium, magnesium, potassium, and sodium. Both total recoverable and dissolved metals were analyzed for groundwater samples for the purpose of providing data on the effects of turbidity on groundwater quality. Dissolved metals only are compared to human health standards. The dissolved metals sample is passed through a filter designed to remove particles greater than 0.45 micrometers in diameter at the time of sample collection. The Section 35 groundwater analysis results for metals are shown in Tables 5 and 6.

As shown in Table 5, iron exceeded the DEQ-7 human health standard in S35MW05 for the second quarter sampling event. Manganese exceeded the DEQ-7 human health standard in S35MW03 during the first and second quarter events and in S35MW04 during the first and third quarter events. Although several other metals were detected in Section 35 groundwater monitoring wells, no other DEQ-7 human health standards were exceeded.

Table 6 shows the groundwater results for total recoverable metals. Though the results are not compared to DEQ-7 human health standards, they do demonstrate how turbidity may impact water quality. S35MW02 water levels dropped significantly between the second and third quarters of monitoring (Table 9). The third quarter sample had significantly increased turbidity (Table 7) and the total recoverable concentrations of many metals in the sample increased as a result. In the dissolved metals sample, increases for some metals concentrations were also observed in S35MW02 between the second and third quarters (aluminum, copper, iron, and manganese), but none exceeded human health standards.

Table 7 shows the analytical results for physiochemical properties, common anions, and common cations. The only applicable standard for human health found in DEQ-7 for these properties is for pH. As shown in the table, pH values were all within an acceptable range for human health. Table 8 shows field water quality measurements recorded during groundwater sampling. Field water quality measurements are not compared to standards (DEQ-7 standard for pH only), but provide additional information on groundwater quality.



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Table 5. Section 35 groundwater (dissolved metals, mg/l)

Sample ID	Collection Date	Dissolved Metals (mg/l)																		
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
	*Standard	----	0.006	0.010	1	0.004	0.005	0.100	----	1.3	0.300	0.015	0.050	0.002	0.100	0.050	0.100	0.002	----	2
S35 MW01	5/1/2011	<0.03	<0.003	<0.003	0.272	<0.001	<0.00009	<0.001	<0.01	<0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW01	6/16/2011	<0.03	<0.003	<0.003	0.273	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW01	9/21/2011	<0.03	<0.003	<0.003	0.254	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW01	12/12/2011	<0.03	<0.003	<0.003	0.262	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW02	4/30/2011	<0.03	<0.003	<0.003	0.752	<0.001	<0.00008	<0.001	<0.01	0.003	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.02
S35 MW02	6/17/2011	<0.03	<0.003	<0.003	0.853	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW02	9/21/2011	0.03	<0.003	<0.003	0.792	<0.001	0.00055	<0.001	<0.01	0.008	0.06	<0.0005	0.022	0.00004	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW02	12/12/2011	Dry																		
S35 MW03	5/1/2011	<0.03	<0.003	<0.003	0.288	<0.001	<0.00009	0.001	<0.01	0.001	<0.05	<0.0005	0.188	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW03	6/16/2011	0.04	<0.003	<0.003	0.326	<0.001	<0.00008	0.002	<0.01	<0.001	<0.05	<0.0005	0.066	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW03	9/21/2011	0.04	<0.003	<0.003	0.292	<0.001	<0.00008	0.002	<0.01	<0.001	<0.05	<0.0005	0.014	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW03	12/12/2011	0.07	<0.003	<0.003	0.310	<0.001	<0.00008	0.003	<0.01	<0.001	0.05	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW04	5/1/2011	0.11	<0.003	<0.003	0.234	<0.001	<0.00009	<0.001	<0.01	0.001	0.11	<0.0005	0.059	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW07	5/1/2011	0.09	<0.003	<0.003	0.231	<0.001	<0.00009	<0.001	<0.01	0.001	0.19	<0.0005	0.059	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW04	6/16/2011	0.07	<0.003	<0.003	0.283	<0.001	<0.00008	<0.001	<0.01	0.001	0.05U	<0.0005	0.023	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW07	6/16/2011	0.06	<0.003	<0.003	0.281	<0.001	<0.00008	<0.001	<0.01	0.001	<0.05	<0.0005	0.026	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW04	9/21/2011	0.24	<0.003	<0.003	0.390	<0.001	0.00022	0.003	<0.01	<0.001	0.27	0.0006	0.050	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW07	9/21/2011	0.22	<0.003	<0.003	0.374	<0.001	0.00021	0.003	<0.01	<0.001	0.28	0.0006	0.045	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW04	12/13/2011	<0.03	<0.003	<0.003	0.457	<0.001	<0.00008	0.002	<0.01	<0.001	<0.05	<0.0005	0.009	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW05	5/1/2011	Dry																		
S35 MW05	6/17/2011	1.16	<0.003	<0.003	0.105	<0.001	0.00012	<0.001	<0.01	0.004	0.59	0.0012	0.039	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.01U
S35 MW05	9/21/2011	Dry																		
S35 MW05	12/13/2011	Dry																		
S35 MW06	5/1/2011	<0.03	<0.003	<0.003	0.738	<0.001	<0.00008	<0.001	<0.01	0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW06	6/17/2011	<0.03	<0.003	<0.003	0.726	<0.001	<0.00008	<0.001	<0.01	0.001	<0.05	<0.0005	0.005U	0.00002	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW06	9/21/2011	<0.03	<0.003	<0.003	0.808	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW06	12/13/2011	<0.03	<0.003	<0.003	0.833	<0.001	<0.00008	<0.001	<0.01	0.002	<0.05	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW07	12/13/2011	<0.03	<0.003	<0.003	0.832	<0.001	<0.00008	<0.001	<0.01	0.002	<0.05	<0.0005	<0.005	0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01

Note: < Indicates the concentration is less than the reporting limit



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Table 6. Section 35 groundwater (total recoverable metals, mg/l)

Sample ID	Collection Date	Mercury (low level)																		
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
S35 MW01	5/1/2011	0.24	<0.003	<0.003	0.278	<0.001	<0.00009	0.001	<0.01	<0.001	0.24	0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW01	6/16/2011	<0.03	<0.003	<0.003	0.274	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.03	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW01	9/21/2011	<0.03	<0.003	<0.003	0.258	<0.001	<0.00008	<0.001	<0.01	<0.001	<0.03	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW01	12/12/2011	<0.03	<0.003	<0.003	0.267	<0.001	<0.00008	<0.001	<0.01	<0.001	0.03	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW02	4/30/2011	0.51	<0.003	<0.003	0.783	<0.001	0.00011	0.001	<0.01	0.008	0.92	0.0015	0.028	0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.02
S35 MW02	6/17/2011	0.53	<0.003	<0.003	0.902	<0.001	0.00012	0.002	<0.01	0.004	1.19	0.0023	0.037	8.16E-08	<0.01	<0.001	0.0011	<0.0002	<0.1	0.01
S35 MW02	9/21/2011	6.33	0.003	0.012	1.25	<0.001	0.00102	0.037	<0.01	0.053	20.2	0.0538	0.711	0.00045	0.02	<0.001	0.0167	<0.0002	<0.1	0.15
S35 MW02	12/12/2011	Dry																		
S35 MW03	5/1/2011	0.39	<0.003	<0.003	0.305	<0.001	<0.00009	0.002	<0.01	0.002	0.30	0.0005	0.246	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW03	6/16/2011	1.36	<0.003	<0.003	0.361	<0.001	0.00010	0.004	<0.01	0.003	1.24	0.0016	0.145	<10E-9	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW03	9/21/2011	0.77	<0.003	<0.003	0.317	<0.001	0.00011	0.004	<0.01	0.002	0.72	0.0032	0.082	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW03	12/12/2011	3.49	<0.003	0.003	0.423	<0.001	0.00017	0.010	<0.01	0.007	3.31	0.0042	0.355	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.02
S35 MW04	5/1/2011	3.88	<0.003	<0.003	0.296	<0.001	0.00012	0.025	<0.01	0.006	4.22	0.0033	0.193	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.02
S35 MW07	5/1/2011	5.38	<0.003	0.003U	0.323	<0.001	<0.0002	0.031	<0.01	0.007	5.31	0.0042	0.232	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.03
S35 MW04	6/16/2011	2.64	<0.003	<0.003	0.352	<0.001	0.00015	0.022	<0.01	0.005	3.29	0.0029	0.181	<10E-9	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.02
S35 MW07	6/16/2011	2.58	<0.003	<0.003	0.344	<0.001	0.00015	0.022	<0.01	0.005	3.25	0.0028	0.176	<10E-9	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.02
S35 MW04	9/21/2011	3.41	<0.003	<0.003	0.485	<0.001	0.00045	0.040	<0.01	0.006	5.77	0.0066	0.320	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.03
S35 MW07	9/21/2011	3.99	<0.003	<0.003	0.542	<0.001	0.00049	0.043	<0.01	0.006	5.81	0.0070	0.354	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.03
S35 MW04	12/13/2011	1.29	<0.003	<0.003	0.510	<0.001	0.00010	0.015	<0.01	0.003	1.94	0.0016	0.073	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.01
S35 MW05	5/1/2011	Dry																		
S35 MW05	6/17/2011	5.13	<0.003	<0.003	0.195	<0.001	0.00013	0.018	<0.01	0.011	4.89	0.0041	0.105	1.79E-08	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.03
S35 MW05	9/21/2011	Dry																		
S35 MW05	1/12/2011	Dry																		
S35 MW06	5/1/2011	1.58	<0.003	<0.003	0.790	<0.001	<0.00008	0.005	<0.01	0.004	1.34	0.0009	0.031	<0.00001	<0.01	<0.001	0.0007	<0.0002	<0.1	<0.01
S35 MW06	6/17/2011	0.54	<0.003	<0.003	0.772	<0.001	<0.00008	0.002	<0.01	0.003	0.56	0.0006	0.020	<10E-9	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 MW06	9/21/2011	0.33	<0.003	<0.003	0.824	<0.001	<0.00008	0.002	<0.01	0.002	0.38	<0.0005	0.012	<0.00001	<0.01	<0.001	0.0005	<0.0002	<0.1	<0.01
S35 MW06	12/13/2011	1.44	<0.003	<0.003	0.915	<0.001	<0.00008	0.004	<0.01	0.008	1.45	0.0012	0.039	<0.00001	<0.01	<0.001	0.0012	<0.0002	<0.1	<0.01
S35 MW07	12/13/2011	1.47	<0.003	<0.003	0.927	<0.001	<0.00008	0.004	<0.01	0.007	1.45	0.0012	0.038	<0.00001	<0.01	<0.001	0.0014	<0.0002	<0.1	<0.01

Note: < Indicates the concentration is less than the reporting limit

Total recoverable metals were sampled for baseline to determine the influence of turbidity on groundwater quality

Duplicate of S35 MW04

Duplicate of S35 MW06

mg/l = milligrams per liter

U = Flagged as non-detect during data validation



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Table 7. Section 35 groundwater (physiochemical, anions, cations)

Sample ID	Collection Date	Physiochemical				Common Anions (mg/l)					Common Cations (mg/l)							
		pH	Conductivity, umhos	Hardness	Total Susp. Solids, mg/l	Total Diss. Solids, mg/L	Alkalinity	Bicarbonate	Carbonate	Chloride	Sulfate	Calcium (TR)	Calcium (D)	Magnesium (TR)	Magnesium (D)	Potassium (TR)	Potassium (D)	Sodium (TR)
	*Standard	6.5 – 8.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S35 MW01	5/1/2011	8.1	282	153	12	122	150	190	<4	<1	7	35	33	18	17	2	3	3
S35 MW01	6/16/2011	8.2	271	151	<10	150	150	190	<4	<1	6	32	32	17	17	1U	1	2
S35 MW01	9/21/2011	8.1	256	140	<10	158	160	200	<4	<1	6	31	30	17	16	1	1	2
S35 MW01	12/12/2011	8.2	279	147	<10	164	150	180	<4	<1	6	32	31	17	17	1	1	3
S35 MW02	4/30/2011	8.1	423	226	44	264	240	290	<4	1	7	69	66	15	15	2	2	4
S35 MW02	6/17/2011	8.2	444	221	58	254	240	300	<4	2	6	66	64	15	15	2	2	4
S35 MW02	9/21/2011	8.3	306	224	280	206	190	230	<4	1	5	66	64	14	15	4	2	3
S35 MW02	12/12/2011	Dry																
S35 MW03	5/1/2011	8.3	319	136	16	184	180	220	<4	<1	5	41	39	10	9	3	2	20
S35 MW03	6/16/2011	8.3	310	151	60	162	170	210	<4	<1	4	44	43	11	10	2	2	12
S35 MW03	9/21/2011	8.3	299	140	40	198	170	210	<4	<1	4	41	40	10	10	2	2	11
S35 MW03	12/12/2011	8.2	319	154	216	192	170	210	<4	<1	4	47	45	12	10	3	2	11
S35 MW04	5/1/2011	8.2	230	111	474	144	120	150	<4	<1	2	36	33	8	7	4	3	3
S35 MW07	5/1/2011	8.2	229	114	556	140	120	150	<4	<1	2	37	34	9	7	5	3	2
S35 MW04	6/16/2011	8.1	216	113	154	170	120	140	<4	<1	<1	35	34	7	7	2	2	2
S35 MW07	6/16/2011	8.1	216	111	142	152	120	140	<4	<1	<1	35	34	7	6	2	2	2
S35 MW04	9/21/2011	8.2	298	150	400	192	180	220	<4	<1	2	48	44	11	10	4	3	3
S35 MW07	9/21/2011	8.2	294	149	448	188	180	220	<4	<1	2	52	43	12	10	4	3	2
S35 MW04	12/13/2011	8.2	323	166	78	186	180	220	<4	<1	2	51	49	11	11	4	4	2
S35 MW05	5/1/2011	Dry																
S35 MW05	6/17/2011	7.2	58	27	184	136	28	34	<4	<1	<1	9	8	3	2	2	1	2
S35 MW05	9/21/2011	Dry																
S35 MW05	12/12/2011	Dry																
S35 MW06	5/1/2011	8.1	329	183	48	197	180	220	<4	<1	1	50	51	13	13	2	1	5
S35 MW06	6/17/2011	8.1	306	161	14	162	170	210	<4	<1	<1	45	45	13	12	1U	<1	5
S35 MW06	9/21/2011	8.2	350	198	20	228	210	250	<4	<1	1	54	54	15	15	1	1	4
S35 MW06	12/13/2011	8.2	354	196	68	206	200	240	<4	<1	1	55	54	16	15	2	1	4
S35 MW07	12/13/2011	8.2	349	195	70	216	200	240	<4	<1	1	55	53	16	15	2	1	4

U = Flagged as non-detect during data validation

Note:

< Indicates the concentration is less than the reporting limit

* Montana Numeric Water Quality Standards Circular 7, 2010, human health standard

--- No standard

Duplicate of S35 MW04

Duplicate of S35 MW06

mg/l = milligrams per liter

TR = Total Recoverable

D = Dissolved

umhos = micromhos



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Table 7. Section 35 groundwater quality field measurements

Sample ID	Collection Date	pH	Conductivity, umhos	Temperature, °C	Dissolved Oxygen, % Saturation	Dissolved Oxygen, mg/l	Oxidation Reduction Potential, mv
S35 MW01	5/1/2011	NC	284.3	5.77	NC	NC	NC
S35 MW01	6/16/2011	7.59	292	6.69	55.1	6.74	267.6
S35 MW01	9/21/2011	7.7	277	6.65	60.8	7.44	194
S35 MW01	12/12/2011	7.56	299	5.01	62.2	7.93	288.4
S35 MW02	4/30/2011	6.65	442	5.17	NC	NC	211
S35 MW02	6/17/2011	7.36	4.6	6.48	88	10.84	290.2
S35 MW02	9/21/2011	8.2	343	8.32	83.2	9.65	276.2
S35 MW02	12/12/2011	Dry					
S35 MW03	5/1/2011	NC	318	5.6	NC	NC	NC
S35 MW03	6/16/2011	7.9	330	6.67	67.2	8.21	277.3
S35 MW03	9/21/2011	8.02	315	10.5	71.1	7.93	229.5
S35 MW03	12/12/2011	7.72	331	5.32	29.6	3.9	305.1
S35 MW04	5/1/2011	NC	224.3	6.86	NC	NC	NC
S35 MW07	5/1/2011	NC	224.3	6.86	NC	NC	NC
S35 MW04	6/16/2011	7.44	223	6.67	92.91	11.43	281.5
S35 MW07	6/16/2011	7.44	223	6.67	92.91	11.43	281.5
S35 MW04	9/21/2011	7.89	318	9.94	106	12.08	160.8
S35 MW07	9/21/2011	7.89	318	9.94	106	12.08	160.8
S35 MW04	12/12/2011	7.8	357	2.48	83.2	11.54	249.4
S35 MW05	5/1/2011	Dry					
S35 MW05	6/17/2011	6.09	50	7.28	76	9.15	270.4
S35 MW05	9/21/2011	Dry					
S35 MW05	12/12/2011	Dry					
S35 MW06	5/1/2011	NC	280.9	5.78	NC	NC	NC
S35 MW06	6/17/2011	7.3	280	5.37	92.5	11.79	288.6
S35 MW06	9/21/2011	7.75	367	9.01	99.4	11.52	227.5
S35 MW06	12/13/2011	7.61	395	5.09	84	10.7	243.3
S35 MW07	12/12/2011	7.61	395	5.09	84	10.7	243.3

Note:

NC = not collected

Duplicate of S35

MW04

Duplicate of S35

MW06

°C = degrees Celsius

mg/l = milligrams per liter

mv = millivolts

umhos = micromhos



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4.1.1 Groundwater Elevation Data

Prior to each sampling event, groundwater elevation data was collected using a water level meter to record static water levels in monitoring wells and site piezometers to the nearest 1/100th of a foot. As shown in Table 9, the measurements reflect significant seasonal variation in several of the wells and piezometers. Table 9 shows the measured static water levels and the water elevation in feet above mean sea level (famsl). Figures 3 and 4 show the inferred water flow direction based on the elevation data measured during the early summer and winter sampling events (high and low water elevations). As shown in the figures, the seasonal variations in water elevations have little impact on the general direction of groundwater flow (generally southwest towards Highway 279).

Table 9. Section 35 Groundwater elevation data

Station ID	Date	SWL (ft below measuring point)	Water Elevation (famsl)
S35MW01	5/1/2011	3.61	5094.35
	6/16/2011	Artesian	5097.60
	7/21/2011	Artesian	5097.60
	9/21/2011	Artesian	5097.60
	12/12/2011	6.19	5091.77
S35MW02	4/30/2011	73.93	5164.44
	6/17/2011	71.50	5166.87
	7/21/2011	79.08	5159.29
	9/21/2011	81.32	5157.05
	12/12/2011	83.20	5155.17
S35MW03	5/1/2011	6.44	5070.17
	6/16/2011	4.00	5073.61
	7/21/2011	7.42	5069.19
	9/21/2011	10.96	5065.65
	12/12/2011	13.34	5063.27
S35MW04	5/1/2011	32.15	5032.52
	6/16/2011	26.00	5038.67
	7/21/2011	32.01	5032.66
	7/29/2011	36.19	5028.48
	12/13/2011	38.69	5025.98
S35MW05	4/30/2011	Dry	Dry
	6/17/2011	13.00	5094.76
	7/21/2011	Dry	Dry
	9/21/2011	Dry	Dry
	12/12/2011	45.11	5062.65
S35MW06	5/1/2011	12.90	5250.35
	6/17/2011	10.24	5253.01
	7/21/2011	20.49	5242.76
	9/21/2011	32.38	5230.87
	12/12/2011	36.21	5227.04

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Table 9. Continued

Station ID	Date	SWL (ft below measuring point)	Water Elevation (famsl)
S35PZ10	5/1/2011	9.27	5144.91
	6/16/2011	9.15	5145.03
	7/21/2011	9.88	5144.30
	9/21/2011	10.63	5143.55
	12/12/2011	10.78	5143.40
S35PZ22	4/30/2011	Dry	Dry
	6/17/2011	9.92	5151.79
	7/21/2011	12.56	5149.15
	9/21/2011	Dry	Dry
	12/12/2011	16.98	5144.73
S35PZ05	5/1/2011	5.64	5069.96
	6/16/2011	6.11	5069.49
	7/21/2011	9.25	5066.35
	9/21/2011	10.87	5064.73
	12/12/2011	11.42	5064.18
S35PZ04	5/1/2011	4.20	5079.82
	6/16/2011	4.10	5079.92
	7/21/2011	5.32	5078.70
	12/12/2011	7.14	5076.88

Continuous level data, measured and recorded in site wells and piezometers by electronic transducers and data loggers, is attached in Appendix H. Graphs of the 2011 data are attached in Appendix E. The data represents the indicated head of water in the well/piezometer column above the well bottom in feet.

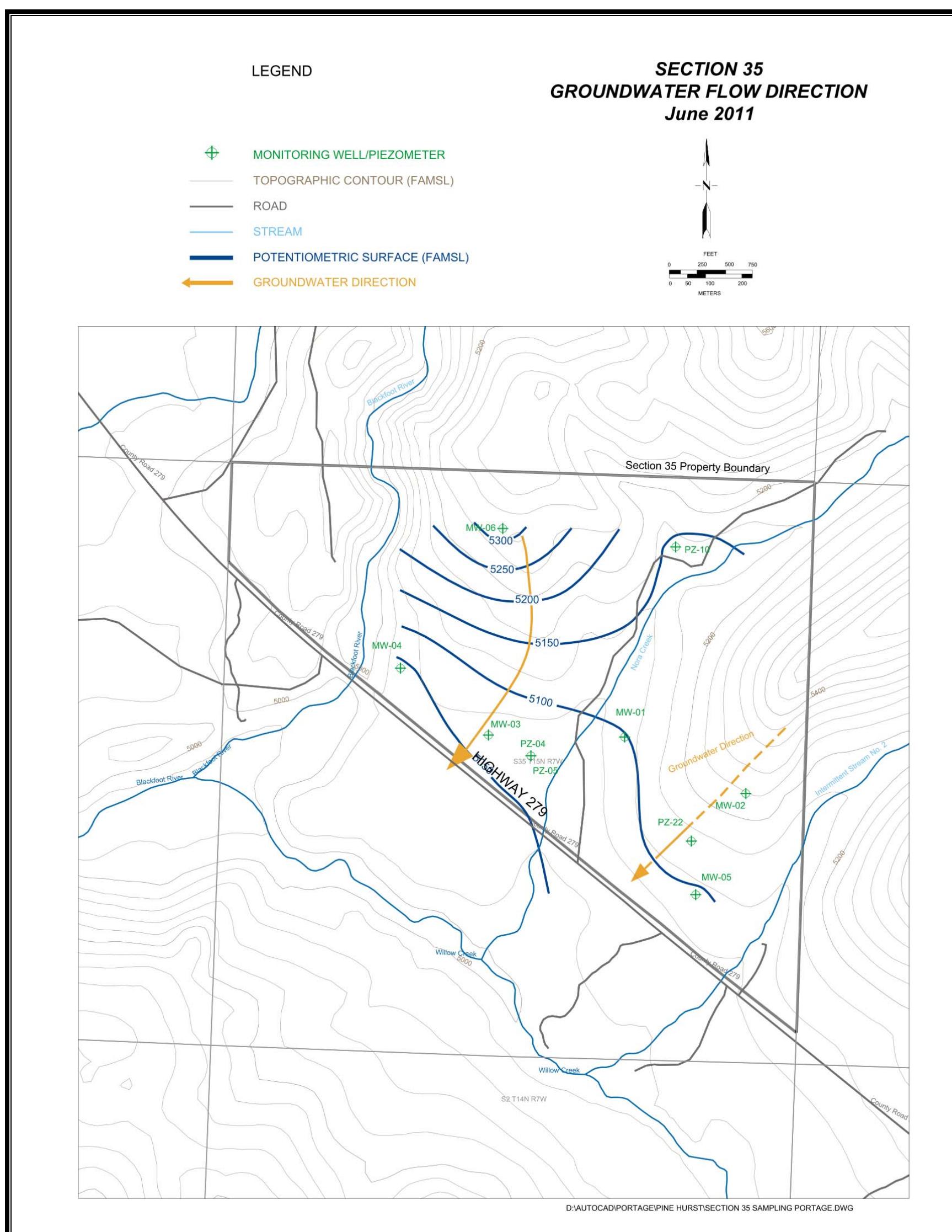


Figure 3. Second quarter groundwater flow direction

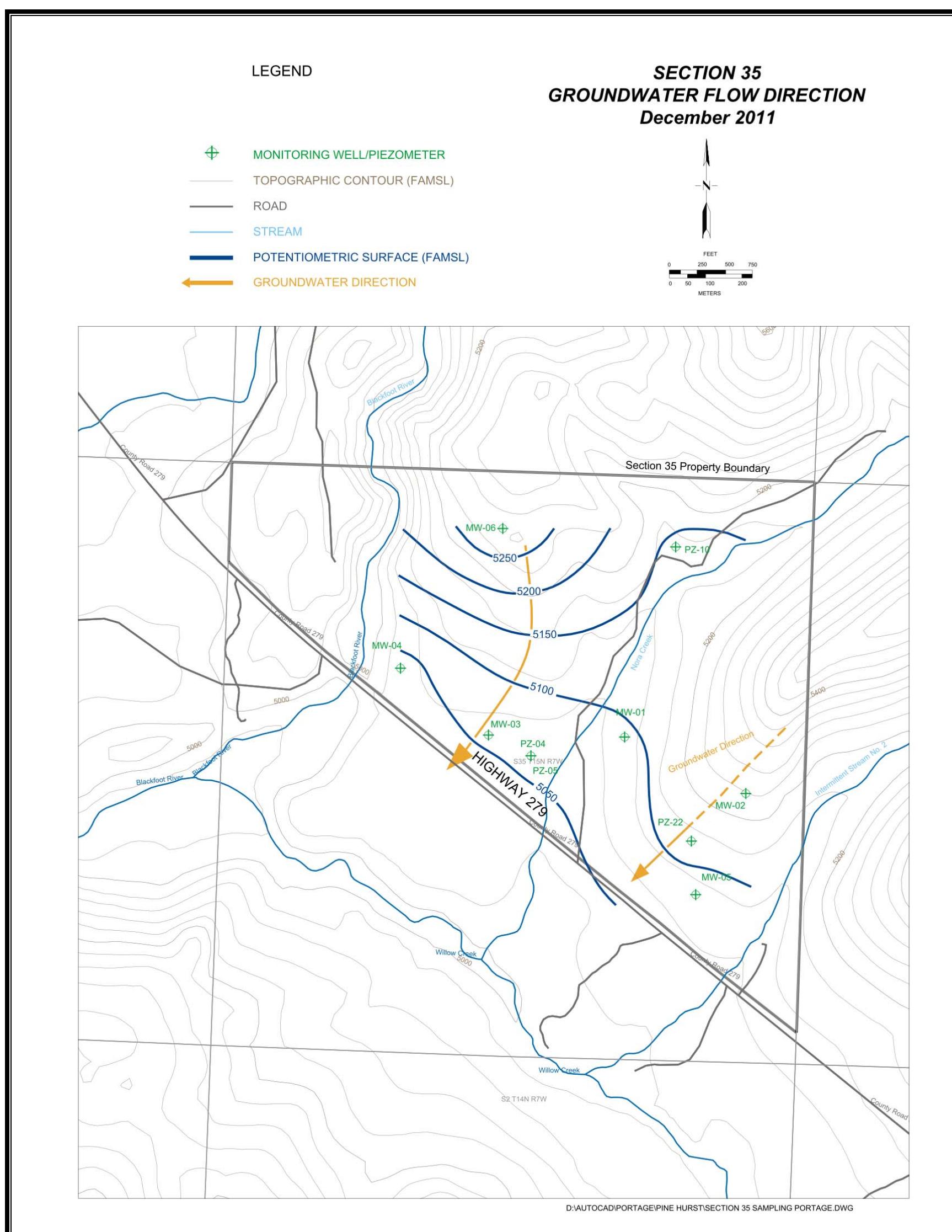


Figure 4. Fourth quarter groundwater flow direction



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4.2 Surface Water

The metals analyzed for Section 35 surface water monitoring stations are aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc. The cations included are: calcium, magnesium, potassium, and sodium. Total recoverable metals concentrations were compared to both human health and aquatic life standards found in DEQ-7. Dissolved aluminum is compared to aquatic life standards when the pH of the sample is between 6.5 and 9. Samples for dissolved aluminum were passed through a filter designed to remove particles greater than 0.45 microns in diameter at the time of sample collection. Tables 10 through 13 show the results for metals in Section 35 surface water.

Figure 2 shows the locations of Section 35 surface water stations. They are identified as follows:

- S35SW01 – Norah Creek, downgradient.
- S35SW02 – Norah Creek, upgradient.
- S35SW03 – Blackfoot River, upgradient.
- S35SW04 – Blackfoot River downgradient.
- S35SW05 – unnamed tributary to Willow Creek.

As shown in Table 10, iron exceeded the DEQ-7 human health standard at stations S35SW03 and S35SW05 for the first quarter sampling event. Manganese exceeded the DEQ-7 human health standard at stations S35SW03 and S35SW04 during the first quarter events. Although several other metals were detected at Section 35 surface water sampling stations, no other DEQ-7 human health standards were exceeded.

Table 11 shows the total metals results compared to chronic and acute aquatic life standards. As shown in Table 12, the standards for cadmium, copper, chromium, lead, nickel, silver, and zinc are calculated for each sampling event based on the hardness of the sample (hardness values are shown in Table 14). The standards for these metals are adjusted by hardness because in general the toxicity of these metals to aquatic life decreases with increasing hardness. The results indicate that the chronic aquatic life standard for cadmium at S35SW03 and S35SW04 was exceeded the first and second quarter sampling events. The chronic aquatic life standard for zinc at S35SW03 and S35SW04 was exceeded during the first, second, and fourth quarter sampling events.

Table 13 shows exceedance of the chronic aquatic life aluminum standard at S35SW01, 02, 03, and 04 for the first quarter sampling event and one exceedance of the acute aquatic life aluminum standard at S35SW05 during the first quarter sampling event. pH was in the required range of 6.5 to 9 for all samples.

Table 14 shows the analytical results for physiochemical properties, common anions, and common cations. The only applicable standard for human health found in DEQ-7 for these properties is for pH. As shown in the table, pH values were all within an acceptable range for human health. Table 15 shows field water quality measurements recorded during surface water sampling. Field water quality measurements are not compared to standards, but provide additional information on the surface water quality.



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Table 10. Section 35 surface water (total recoverable metals, mg/l)

Collection Date	Sample ID	Mercury (low level)																		
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
*Standard	----	0.006	0.010	1	0.004	0.005	0.100	----	1.3	0.300	0.015	0.050	0.002	0.002	0.100	0.050	0.100	0.002	----	2
S35 SW01	4/29/2011	0.26	<0.003	<0.003	0.082	<0.001	<0.00008	<0.001	<0.01	0.003	0.20	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW06	4/29/2011	0.25	<0.003	<0.003	0.082	<0.001	<0.00008	<0.001	<0.01	0.003	0.19	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW01	6/14/2011	0.08	<0.003	<0.003	0.104	<0.001	<0.00008	<0.001	<0.01	0.002	0.11	<0.0005	0.011	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW06	6/14/2011	0.09	<0.003	<0.003	0.101	<0.001	<0.00008	<0.001	<0.01	0.002	0.11	<0.0005	0.013	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW01	9/19/2011	0.03	<0.003	<0.003	0.197	<0.001	<0.00008	<0.001	<0.01	<0.001	0.14	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW06	9/19/2011	<0.03	<0.003	<0.003	0.202	<0.001	<0.00008	<0.001	<0.01	<0.001	0.15	<0.0005	0.006	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW01	12/10/2011	<0.03	<0.003	<0.003	0.176	<0.001	<0.00008	<0.001	<0.01	<0.001	0.06	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW06	12/10/2011	<0.03	<0.003	<0.003	0.182	<0.001	<0.00008	<0.001	<0.01	0.004U	0.07	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW02	4/29/2011	0.32	<0.003	<0.003	0.082	<0.001	<0.00008	<0.001	<0.01	0.004	0.25	<0.0005	0.006	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW02	6/14/2011	0.09	<0.003	<0.003	0.103	<0.001	<0.00008	<0.001	<0.01	0.003	0.08	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW02	9/19/2011	<0.03	<0.003	<0.003	0.117	<0.001	<0.00008	<0.001	<0.01	0.001	0.14	<0.0005	0.022	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW02	12/10/2011	<0.03	<0.003	<0.003	0.105	<0.001	<0.00008	<0.001	<0.01	0.001	0.07	<0.0005	0.009	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW03	4/29/2011	0.20	<0.003	<0.003	0.125	<0.001	0.00034	<0.001	<0.01	0.003	0.31	0.0006	0.068	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.18
S35 SW03	6/14/2011	0.04	<0.003	<0.003	0.158	<0.001	0.00046	<0.001	<0.01	0.004	0.08	0.0009	0.016	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.17
S35 SW03	9/19/2011	<0.03	<0.003	<0.003	0.194	<0.001	0.00017	<0.001	<0.01	0.001	0.06	<0.0005	0.006	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.06
S35 SW03	12/10/2011	<0.03	<0.003	<0.003	0.171	<0.001	0.00019	<0.001	<0.01	<0.001	0.06	<0.0005	0.013	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.15
S35 SW04	4/29/2011	0.17	<0.003	<0.003	0.121	<0.001	0.00029	<0.001	<0.01	0.003	0.27	0.0006	0.055	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.17
S35 SW04	6/14/2011	0.04	<0.003	<0.003	0.157	<0.001	0.00047	<0.001	<0.01	0.003	0.08	0.0008	0.017	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.17
S35 SW04	9/19/2011	<0.03	<0.003	<0.003	0.187	<0.001	0.00016	<0.001	<0.01	0.001	0.05	<0.0005	<0.005	0.00002	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.06
S35 SW04	12/10/2011	<0.03	<0.003	<0.003	0.169	<0.001	0.00018	<0.001	<0.01	<0.001	0.06	<0.0005	0.010	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.14
S35 SW05	4/28/2011	0.83	<0.003	<0.003	0.111	<0.001	<0.00008	<0.001	<0.01	0.003	0.54	<0.0005	0.011	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW05	6/14/2011	0.15	<0.003	<0.003	0.128	<0.001	<0.00008	<0.001	<0.01	0.002	0.13	<0.0005	0.008	0.00002	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW05	9/19/2011	0.06	<0.003	<0.003	0.163	<0.001	<0.00008	<0.001	<0.01	0.001	0.14	<0.0005	0.015	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01
S35 SW05	12/10/2011	<0.03	<0.003	<0.003	0.132	<0.001	<0.00008	<0.001	<0.01	0.001	0.04	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01

Note: < Indicates the concentration is less than the reporting limit

Exceeds standard

* Montana Numeric Water Quality Standards Circular 7, 2010, human health standard

---- No DEQ-7 standard

Duplicate of S35 SW01

mg/l = milligrams per liter

U = Flagged as non-detect during data validation



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Table 11. Section 35 surface water (total recoverable metals, mg/l)

Collection Date	Sample ID	Aluminum	Antimony	Arsenic	Barium	Beryllium	** Cadmium	*** Chromium	Cobalt	** Copper	Iron	** Lead	Manganese	Mercury (low level)	Mercury	** Nickel	** Selenium	** Silver	** Thallium	Vanadium	** Zinc
*Standard (acute/chronic)	---	---	---	0.34/0.15	---	---	See Table 12	See Chart	---	See Table 12	---/1.0	See Table 12	---	0.0017/0.00091	0.0017/0.00091	See Table 12	0.02/0.005	See Table 12/---	---	See Table 12/---	See Table 12
S35 SW01	4/29/2011	0.26	<0.003	<0.003	0.082	<0.001	<0.00008	<0.001	<0.01	0.003	0.20	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW06	4/29/2011	0.25	<0.003	<0.003	0.082	<0.001	<0.00008	<0.001	<0.01	0.003	0.19	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW01	6/14/2011	0.08	<0.003	<0.003	0.104	<0.001	<0.00008	<0.001	<0.01	0.002	0.11	<0.0005	0.011	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW06	6/14/2011	0.09	<0.003	<0.003	0.101	<0.001	<0.00008	<0.001	<0.01	0.002	0.11	<0.0005	0.013	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW01	9/19/2011	0.03	<0.003	<0.003	0.197	<0.001	<0.00008	<0.001	<0.01	<0.001	0.14	<0.0005	0.007	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW06	9/19/2011	<0.03	<0.003	<0.003	0.202	<0.001	<0.00008	<0.001	<0.01	<0.001	0.15	<0.0005	0.006	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW01	12/10/2011	<0.03	<0.003	<0.003	0.176	<0.001	<0.00008	<0.001	<0.01	<0.001	0.06	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW06	12/10/2011	<0.03	<0.003	<0.003	0.182	<0.001	<0.00008	<0.001	<0.01	0.004U	0.07	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW02	4/29/2011	0.32	<0.003	<0.003	0.082	<0.001	<0.00008	<0.001	<0.01	0.004	0.25	<0.0005	0.006	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW02	6/14/2011	0.09	<0.003	<0.003	0.103	<0.001	<0.00008	<0.001	<0.01	0.003	0.08	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW02	9/19/2011	<0.03	<0.003	<0.003	0.117	<0.001	<0.00008	<0.001	<0.01	0.001	0.14	<0.0005	0.022	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW02	12/10/2011	<0.03	<0.003	<0.003	0.105	<0.001	<0.00008	<0.001	<0.01	0.001	0.07	<0.0005	0.009	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW03	4/29/2011	0.20	<0.003	<0.003	0.125	<0.001	0.00034	<0.001	<0.01	0.003	0.31	0.0006	0.068	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.18	
S35 SW03	6/14/2011	0.04	<0.003	<0.003	0.158	<0.001	0.00046	<0.001	<0.01	0.004	0.08	0.0009	0.016	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.17	
S35 SW03	9/19/2011	<0.03	<0.003	<0.003	0.194	<0.001	0.00017	<0.001	<0.01	0.001	0.06	<0.0005	0.006	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.06	
S35 SW03	12/10/2011	<0.03	<0.003	<0.003	0.171	<0.001	0.00019	<0.001	<0.01	<0.001	0.06	<0.0005	0.013	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.15	
S35 SW04	4/29/2011	0.17	<0.003	<0.003	0.121	<0.001	0.00029	<0.001	<0.01	0.003	0.27	0.0006	0.055	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.17	
S35 SW04	6/14/2011	0.04	<0.003	<0.003	0.157	<0.001	0.00047	<0.001	<0.01	0.003	0.08	0.0008	0.017	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.17	
S35 SW04	9/19/2011	<0.03	<0.003	<0.003	0.187	<0.001	0.00016	<0.001	<0.01	0.001	0.05	<0.0005	<0.005	0.00002	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.06	
S35 SW04	12/10/2011	<0.03	<0.003	<0.003	0.169	<0.001	0.00018	<0.001	<0.01	<0.001	0.06	<0.0005	0.010	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	0.14	
S35 SW05	4/28/2011	0.83	<0.003	<0.003	0.111	<0.001	<0.00008	<0.001	<0.01	0.003	0.54	<0.0005	0.011	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW05	6/14/2011	0.15	<0.003	<0.003	0.128	<0.001	<0.00008	<0.001	<0.01	0.002	0.13	<0.0005	0.008	0.00002	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW05	9/19/2011	0.06	<0.003	<0.003	0.163	<0.001	<0.00008	<0.001	<0.01	0.001	0.14	<0.0005	0.015	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	
S35 SW05	12/10/2011	<0.03	<0.003	<0.003	0.132	<0.001	<0.00008	<0.001	<0.01	0.001	0.04	<0.0005	<0.005	<0.00001	<0.01	<0.001	<0.0005	<0.0002	<0.1	<0.01	

Note: < Indicates the concentration is less than the reporting limit

Exceeds chronic standard

* Montana Numeric Water Quality Standards Circular 7, 2010, aquatic life standards

** Calculated per Circular 7 @ 25 mg/l hardness

*** Calculated per Circular 7 @ 25 mg/l hardness for Chromium III

---- No DEQ-7 standard

Duplicate of S35 SW01

U = Flagged as non-detect during data validation



Table 12. Hardness adjusted surface water quality standards (mg/l)

Sample ID	Collection Date	Cadmium		Chromium		Copper		Lead		Nickel		Silver		Zinc	
		Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
S35 SW01	4/29/2011	0.00105	0.00016	1.02203	0.04885	0.00729	0.00516	0.03378	0.00132	0.26101	0.02902	0.00123	---	0.06660	0.06660
S35 SW06	4/29/2011	0.00101	0.00016	0.98843	0.04724	0.00701	0.00498	0.03207	0.00125	0.25215	0.02803	0.00115	---	0.06433	0.06433
S35 SW01	6/14/2011	0.00110	0.00017	1.05539	0.05044	0.00756	0.00534	0.03551	0.00138	0.26982	0.03000	0.00132	---	0.06885	0.06885
S35 SW06	6/14/2011	0.00108	0.00016	1.03874	0.04965	0.00742	0.00525	0.03465	0.00135	0.26542	0.02951	0.00127	---	0.06772	0.06772
S35 SW01	9/19/2011	0.00218	0.00027	1.83253	0.08759	0.01426	0.00949	0.08373	0.00326	0.47710	0.05304	0.00420	---	0.12184	0.12184
S35 SW06	9/19/2011	0.00218	0.00027	1.83253	0.08759	0.01426	0.00949	0.08373	0.00326	0.47710	0.05304	0.00420	---	0.12184	0.12184
S35 SW01	12/10/2011	0.00202	0.00026	1.72887	0.08263	0.01334	0.00893	0.07648	0.00298	0.44925	0.04995	0.00372	---	0.11472	0.11472
S35 SW06	12/10/2011	0.00207	0.00026	1.75863	0.08406	0.01360	0.00909	0.07854	0.00306	0.45724	0.05084	0.00385	---	0.11676	0.11676
S35 SW02	4/29/2011	0.00105	0.00016	1.02203	0.04885	0.00729	0.00516	0.03378	0.00132	0.26101	0.02902	0.00123	---	0.06660	0.06660
S35 SW02	6/14/2011	0.00105	0.00016	1.02203	0.04885	0.00729	0.00516	0.03378	0.00132	0.26101	0.02902	0.00123	---	0.06660	0.06660
S35 SW02	9/19/2011	0.00146	0.00021	1.33053	0.06359	0.00987	0.00679	0.05091	0.00198	0.34277	0.03811	0.00214	---	0.08749	0.08749
S35 SW02	12/10/2011	0.00133	0.00019	1.23500	0.05903	0.00906	0.00629	0.04534	0.00177	0.31738	0.03529	0.00183	---	0.08100	0.08100
S35 SW03	4/29/2011	0.00185	0.00024	1.60870	0.07689	0.01228	0.00828	0.06838	0.00266	0.41703	0.04637	0.00319	---	0.10648	0.10648
S35 SW03	6/14/2011	0.00144	0.00020	1.31472	0.06284	0.00973	0.00671	0.04997	0.00195	0.33856	0.03764	0.00209	---	0.08642	0.08642
S35 SW03	9/19/2011	0.00229	0.00028	1.90578	0.09109	0.01492	0.00988	0.08899	0.00347	0.49681	0.05524	0.00456	---	0.12689	0.12689
S35 SW03	12/10/2011	0.00226	0.00028	1.89118	0.09039	0.01479	0.00981	0.08793	0.00343	0.49288	0.05480	0.00449	---	0.12588	0.12588
S35 SW04	4/29/2011	0.00187	0.00025	1.62382	0.07761	0.01241	0.00836	0.06938	0.00270	0.42108	0.04682	0.00326	---	0.10752	0.10752
S35 SW04	6/14/2011	0.00146	0.00021	1.33053	0.06359	0.00987	0.00679	0.05091	0.00198	0.34277	0.03811	0.00214	---	0.08749	0.08749
S35 SW04	9/19/2011	0.00229	0.00028	1.90578	0.09109	0.01492	0.00988	0.08899	0.00347	0.49681	0.05524	0.00456	---	0.12689	0.12689
S35 SW04	12/10/2011	0.00224	0.00028	1.87656	0.08969	0.01466	0.00973	0.08688	0.00339	0.48895	0.05436	0.00441	---	0.12487	0.12487
S35 SW05	4/28/2011	0.00116	0.00017	1.10501	0.05282	0.00797	0.00560	0.03814	0.00149	0.28293	0.03146	0.00145	---	0.07220	0.07220
S35 SW05	6/14/2011	0.00110	0.00017	1.05539	0.05044	0.00756	0.00534	0.03551	0.00138	0.26982	0.03000	0.00132	---	0.06885	0.06885
S35 SW05	9/19/2011	0.00207	0.00026	1.75863	0.08406	0.01360	0.00909	0.07854	0.00306	0.45724	0.05084	0.00385	---	0.11676	0.11676
S35 SW05	12/10/2011	0.00185	0.00024	1.60870	0.07689	0.01228	0.00828	0.06838	0.00266	0.41703	0.04637	0.00319	---	0.10648	0.10648



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Table 13. Section 35 surface water (dissolved metals, mg/l)

Sample ID	Collection Date	Aluminum
		*Standard (acute/chronic)
		0.75/0.087
S35 SW01	4/29/2011	0.19
S35 SW06	4/29/2011	0.18
S35 SW01	6/14/2011	<0.03
S35 SW06	6/14/2011	<0.03
S35 SW01	9/19/2011	<0.03
S35 SW06	9/19/2011	<0.03
S35 SW01	12/10/2011	<0.03
S35 SW06	12/10/2011	<0.03
S35 SW02	4/29/2011	0.14
S35 SW02	6/14/2011	0.05
S35 SW02	9/19/2011	<0.03
S35 SW02	12/10/2011	<0.03
S35 SW03	4/29/2011	0.10
S35 SW03	6/14/2011	<0.03
S35 SW03	9/19/2011	<0.03
S35 SW03	12/10/2011	<0.03
S35 SW04	4/29/2011	0.10
S35 SW04	6/14/2011	<0.03
S35 SW04	9/19/2011	<0.03
S35 SW04	12/10/2011	<0.03
S35 SW05	4/28/2011	0.89
S35 SW05	6/14/2011	0.08
S35 SW05	9/19/2011	<0.03
S35 SW05	12/10/2011	<0.03

Note: < Indicates the concentration is less than the reporting limit

Exceeds acute standard

Exceeds chronic standard

* Montana Numeric Water Quality Standards Circular 7, 2010, aquatic life standards

The aluminum standard is for dissolved metals only per Circular 7

The dissolved aluminum is only applicable when pH is between 6.5 and 9

Duplicate of S35 SW01

mg/l = milligrams per liter



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Table 14. Section 35 surface water physiochemical, anions, cations

Sample ID	Collection Date	Physiochemical					Common Anions (mg/l)					Common Cations (mg/l)							
		pH	Conductivity, umhos	Hardness	Total Susp. Solids, mg/l	Total Diss. Solids, mg/L	Alkalinity	Bicarbonate	Carbonate	Chloride	Sulfate	Calcium (D)	Calcium (TR)	Magnesium (D)	Magnesium (TR)	Potassium (D)	Potassium (TR)	Sodium (D)	Sodium (TR)
	*Standard	6.5 – 8.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
S35 SW01	4/29/2011	8.0	94	50	<10	57	49	59	<4	<1	3	12	11	5	5	<1	<1	2	2
S35 SW06	4/29/2011	8.0	93	48	<10	42	49	59	<4	<1	3	11	11	5	5	<1	<1	2	2
S35 SW01	6/14/2011	8.0	116	52	<10	52	57	69	<4	<1	2	12	12	5	5	<1	<1	2	2
S35 SW06	6/14/2011	8.0	111	51	<10	76	58	70	<4	<1	2	12	12	5	5	<1	<1	2	2
S35 SW01	9/19/2011	8.3	181	102	<10	140	110	140	<4	<1	<1	27	27	9	8	<1	<1	2	2
S35 SW06	9/19/2011	8.3	182	102	<10	129	110	140	<4	<1	<1	27	27	9	8	<1	<1	2	2
S35 SW01	12/10/2011	8.2	195	95	<10	136	110	130	<4	<1	1	25	26	8	9	<1	<1	2	2
S35 SW06	12/10/2011	8.2	194	97	<10	132	110	130	<4	<1	1	26	26	8	9	<1	<1	2	2
S35 SW02	4/29/2011	7.8	100	50	<10	70	51	63	<4	<1	3	11	12	5	5	<1	<1	2	2
S35 SW02	6/14/2011	7.9	110	50	<10	50	56	68	<4	<1	2	12	11	5	5	<1	<1	2	2
S35 SW02	9/19/2011	7.6	128	69	<10	97	77	94	<4	<1	1	17	17	7	6	<1	<1	2	2
S35 SW02	12/10/2011	7.7	134	63	<10	94	71	86	<4	<1	2	16	16	6	7	<1	<1	2	2
S35 SW03	4/29/2011	8.1	182	87	<10	126	56	69	<4	4	27	19	19	10	10	<1	<1	3	3
S35 SW03	6/14/2011	8.0	155	68	<10	54	60	73	<4	<1	13	15	15	7	7	<1	<1	2	2
S35 SW03	9/19/2011	8.2	209	107	<10	142	80	97	<4	2	31	25	25	12	11	<1	<1	3	3
S35 SW03	12/10/2011	8.1	227	106	<10	142	76	92	<4	2	34	24	24	11	12	<1	<1	3	3
S35 SW04	4/29/2011	8.1	181	88	<10	114	56	68	<4	4	27	19	19	10	10	<1	<1	3	3
S35 SW04	6/14/2011	8.0	155	69	<10	34	60	74	<4	<1	13	15	15	7	7	<1	<1	2	2
S35 SW04	9/19/2011	8.2	209	107	<10	140	79	97	<4	2	31	25	25	12	11	<1	<1	3	3
S35 SW04	12/10/2011	8.1	224	105	<10	154	75	92	<4	2	34	24	25	11	12	<1	<1	3	3
S35 SW05	4/28/2011	8.1	108	55	<10	81	52	63	<4	<1	3	13	13	5	5	IU	<1	2	2
S35 SW05	6/14/2011	8.1	123	52	<10	80	58	71	<4	<1	2	13	13	5	5	<1	<1	2	2
S35 SW05	9/19/2011	8.2	177	97	<10	116	110	130	<4	<1	3	24	23	11	10	<1	<1	2	2
S35 SW05	12/10/2011	8.2	179	87	<10	128	93	110	<4	<1	5	20	21	9	10	<1	<1	2	2

Note: < Indicates the concentration is less than the reporting limit

* Montana Numeric Water Quality Standards Circular 7, 2010, human health standard

---- No DEQ-7 standard

Duplicate of S35 SW01

mg/l = milligrams per liter

TR = Total Recoverable

D = Dissolved

umhos = micromhos

U = Flagged as non-detect during data validation



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Table 15. Section 35 surface water field parameters

Sample ID	Collection Date	pH	Conductivity, umhos	Temperature, °C	Dissolved Oxygen, % Saturation	Dissolved Oxygen, mg/l	Oxidation Reduction Potential, mv
S35 SW01	4/29/2011	7.64	105.5	3.7	NC	13.6	90.9
S35 SW06	4/29/2011	7.64	105.5	3.7	NC	13.6	90.9
S35 SW01	6/14/2011	7.65	94	11.1	74.31	8.17	318.5
S35 SW06	6/14/2011	7.65	94	11.1	74.31	8.17	318.5
S35 SW01	9/19/2011	8.28	202	9.69	81.5	9.3	210.1
S35 SW06	9/19/2011	8.28	202	9.69	81.5	9.3	210.1
S35 SW01	12/10/2011	7.98	198	0.17	93.2	13.53	178.6
S35 SW06	12/10/2011	7.98	198	0.17	93.2	13.53	178.6
S35 SW02	4/29/2011	7.24	114.1	1.02	NC	11.67	153.8
S35 SW02	6/14/2011	7.22	94	12.37	61.2	6.54	311.3
S35 SW02	9/19/2011	8.15	144	8.15	40.6	4.72	162.8
S35 SW02	12/10/2011	6.84	134	2.49	43.4	5.88	149.9
S35 SW03	4/29/2011	7.89	208.1	1.8	NC	6.04	158.1
S35 SW03	6/14/2011	7.81	131	9.49	77.5	8.85	331.4
S35 SW03	9/19/2011	8.17	227	11.31	80.5	8.73	203.1
S35 SW03	12/10/2011	7.58	234	0.07	92.4	13.48	153.9
S35 SW04	4/29/2011	7.79	210	1.45	NC	6.23	174
S35 SW04	6/14/2011	7.76	131	8.88	77.41	8.97	331.4
S35 SW04	9/19/2011	8.25	229	11.42	88.1	9.4	176.8
S35 SW04	12/10/2011	7.76	233	0.09	96.9	14.06	142.8
S35 SW05	4/28/2011	7.64	984.6	4.09	65.33	11.5	230.1
S35 SW05	6/14/2011	7.75	99	12.78	75.11	8.01	294.5
S35 SW05	9/19/2011	8.06	195	8.88	86.7	10	201
S35 SW05	12/10/2011	7.25	177	0.03	NC	NC	235.2

Note: NC = not collected

Duplicate of S35 SW01

°C = degrees Celsius

mg/l = milligrams per liter

mv = millivolts

umhos = micromhos

4.2.1 Surface Water Flow

For each sampling event the cross section of the stream was gauged with a hand-held, electronic velocity measurement instrument. Cross section thickness (depth of stream) and the cross section intervals (width of stream) were recorded for each measurement point to the nearest 1/10th of a foot. The average stream discharge in feet per second for each point was also recorded. The cross sectional area of the stream and the velocity profile was then used to calculate an instantaneous discharge flowrate at the time of sampling. Table 16 summarizes the Section 35 flow measurements for 2011 in cubic feet per second.

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(cfs).

Table 16. Section 35 surface water discharge

Station	S35SW01	S35SW01	S35SW01	S35SW01
Date	4/29/2011	6/14/2011	9/19/2011	12/10/2011
Discharge (cfs)	2.66	3.19	0.06	0.005
Station	S35SW02	S35SW02	S35SW02	S35SW02
Date	4/29/2011	6/14/2011	9/19/2011	12/10/2011
Discharge (cfs)	1.9	3.67	0.038	0.002
Station	S35SW03	S35SW03	S35SW03	S35SW03
Date	4/29/2011	6/14/2011	9/19/2011	12/10/2011
Discharge (cfs)	54.49	205.36	5.71	3.88
Station	S35SW04	S35SW04	S35SW04	S35SW04
Date	4/29/2011	6/14/2011	9/19/2011	12/10/2011
Discharge (cfs)	51.4	226.28	6.34	2.82
Station	S35SW05	S35SW05	S35SW05	S35SW05
Date	4/29/2011	6/14/2011	9/19/2011	12/10/2011
Discharge (cfs)	4.17	4.67	0.067	0.082

4.3 Trend Analysis

2010 and 2011 metals data for groundwater and surface water were evaluated against pH and SC measurements to attempt the visualization of any trends between the physiochemical parameters and metals concentrations. These trends, if identified, may provide field indicators of water quality impacts which would be useful for monitoring and mitigating the impacts of any future construction activities at the site. The data did not exhibit any meaningful trend between the variables. For example, a detection of aluminum is not associated with any significant out-of-range pH or SC value versus a non-detect measurement.

5. CONCLUSIONS

This section presents conclusions relevant to the use of 2011 Section 35 data for establishing baseline environmental conditions at the site.

5.1 Groundwater

Section 35 groundwater generally exhibits good quality based on comparison of the analytical results to DEQ-7 human health standards. Iron (exceeded in one of 28 samples) and manganese (exceeded in five of 28 samples) were the only constituents which exceeded the human health standards.

These results are consistent with 2010 monitoring performed by TerraGraphics Environmental Engineering, Inc. (Terragraphics) which also showed instances of manganese exceeding the DEQ-7 human health standard, and hardness values within the concentration range as those measured in 2011. Terragraphics did not detect dissolved iron in site monitoring wells in 2010, but total iron was detected in all of the 2010 samples. Comparison of the 2010 and 2011 data does not show any meaningful trend between metals concentrations and the field water quality parameters. The majority of analytes are non-detect and the detected metals occur at relatively low concentrations. The metals commonly detected in Section 35 groundwater are aluminum, barium, copper, iron, manganese, and to a lesser extent cadmium, chromium and zinc. The metals detected would not be expected to significantly affect pH or SC (within the range of detected concentrations) in groundwater with moderate buffering capacity like those found at Section 35.

5.2 Surface Water

Section 35 surface water also exhibits generally good quality based on comparison of the analytical results to DEQ-7 human health standards and aquatic life standards. Iron and manganese were the only constituents which exceeded the human health standards (exceeded in three samples collected on the Blackfoot River and one sample collected on the unnamed tributary to Willow Creek out of 24 surface water samples total).

Exceedances of the chronic aquatic life standards for cadmium occurred in four samples, for zinc in six samples, and aluminum in two samples collected on the Blackfoot River. Except for two zinc exceedances, all of the elevated concentrations occurred at higher river flows during the first and second quarter sampling events. These results are consistent with the June, 2010 sampling results (TerraGraphics, 2011) which also show the chronic aquatic life standards for cadmium and zinc exceeded at both sampling stations on the Blackfoot River. The source of the contaminants is likely mobilization of contaminated soils and sediments from upstream reaches within the UBMC mining area.

Exceedances of the aluminum chronic aquatic life standard also occurred at both sampling stations on Nora Creek during the first quarter sampling event, and one exceedance of the acute aquatic life standard occurred on the unnamed tributary to Willow Creek during the first quarter sampling event. Neither Nora Creek nor the unnamed tributary drainage are impacted by historic mining or other significant human industrial activity with the exception of logging and gravel road construction to facilitate logging. The source of the elevated aluminum may be naturally occurring in site soils and sediments.

Comparison of the 2010 and 2011 surface water data does not show any meaningful trend between



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metals concentrations and the field water quality parameters. The majority of analytes are non-detect and the detected metals occur at relatively low concentrations. The metals commonly detected in Section 35 surface water are aluminum, barium, copper, and iron, and to a lesser extent cadmium, manganese, and zinc. The metals detected would not be expected to significantly affect pH or SC (within the range of detected concentrations) in surface water with moderate buffering capacity like those found at Section 35.

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6. REFERENCES

- MDEQ, 2005, SRS Low-Flow Purgling and Sampling Guidelines.
- MDEQ. 2010a, Circular DEQ-7 Montana Numeric Water Quality Standards.
- MDEQ, 2010b, Montana Department of Environmental Quality Data Validation Guidelines for Evaluating Analytical Data; August 5, 2010.
- Portage, Inc., 2011, Final Sampling and Analysis Plan for Environmental Monitoring of Section 35 Lewis and Clark County, Montana; April, 2011
- TerraGraphics, 2010, Data Summary Report Section 35 Upper Blackfoot Mining Complex; November 18, 2010.
- TerraGraphics, 2011, Data Summary Report Addendum, Section 35 Quarterly Monitoring, Upper Blackfoot Mining Complex, April 14, 2011.
- USEPA, 1986, National Enforcement Investigations Center Policies and Procedures, EPA 300/9-78-007-R, USEPA, 1986.
- USEPA, 1994, Method 200.8 Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Mass Spectrometry.
- USEPA, 2002, USEPA Guidance on Environmental Data Verification and Data Validation, USEPA QA/G-8; November.
- USEPA, 2004, Final USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, USEPA 540-R-04-004; October.
- USEPA, 2006, Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4; February 2006.
- USEPA, 2008, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition, as amended by Final Updates I, II, IIA, IIB, III, IIIA, IIIB, and IV finalized in the Federal Register on January 3, 2008.



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**Appendix A
Laboratory Data Reports**



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ANALYTICAL SUMMARY REPORT

May 16, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11050015 Quote ID: H645 - UBMC

Project Name: Section 35 Groundwater Baseline

Energy Laboratories Inc Helena MT received the following 8 samples for MT DEQ-Site Response on 5/2/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11050015-001	S35 MW02	04/30/11 18:30	05/02/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11050015-002	S35 MW05	05/01/11 10:20	05/02/11	Groundwater	Same As Above
H11050015-003	S35 MW03	05/01/11 12:00	05/02/11	Groundwater	Same As Above
H11050015-004	S35 MW08	05/01/11 12:45	05/02/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11050015-005	S35 MW07	05/01/11 13:45	05/02/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11050015-006	S35 MW04	05/01/11 14:00	05/02/11	Groundwater	Same As Above
H11050015-007	S35 MW06	05/01/11 15:45	05/02/11	Groundwater	Same As Above

ANALYTICAL SUMMARY REPORT

H11050015-008	S35 MW09	05/01/11 16:00	05/02/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
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This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW02
Lab ID: H11050015-001
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 04/30/11 18:30 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	05/03/11 16:46 / zeg		MAN-TECH_110503A : 15		R70695
Conductivity	423	umhos/cm		1		A2510 B	05/03/11 11:23 / cmm		COND_110503A : 710503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	44	mg/L		10		A2540 D	05/03/11 13:33 / cmm	05/03/11 13:10 J-124 (14410200)_110503A : 6			12063
Solids, Total Dissolved TDS @ 180 C	264	mg/L		10		A2540 C	05/03/11 13:55 / cmm	05/03/11 13:17 J-124 (14410200)_110503B : 3			12065
INORGANICS											
Alkalinity, Total as CaCO3	240	mg/L		4		A2320 B	05/03/11 16:46 / zeg		MAN-TECH_110503A : 14		R70695
Bicarbonate as HCO3	290	mg/L		4		A2320 B	05/03/11 16:46 / zeg		MAN-TECH_110503A : 14		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 16:46 / zeg		MAN-TECH_110503A : 14		R70695
Chloride	1	mg/L		1		E300.0	05/03/11 19:42 / zeg		IC101-H_110503B : 19		R70698
Sulfate	7	mg/L		1		E300.0	05/03/11 19:42 / zeg		IC101-H_110503B : 19		R70698
Hardness as CaCO3	226	mg/L		1		A2340 B	05/06/11 09:58 / sld		WATERCALC_110506A : 1		R70790
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Barium	0.752	mg/L		0.005		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Calcium	66	mg/L		1		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Copper	0.003	mg/L		0.001		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Iron	ND	mg/L		0.05		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Magnesium	15	mg/L		1		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Manganese	ND	mg/L		0.005		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Nickel	ND	mg/L		0.01		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Potassium	2	mg/L		1		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW02
Lab ID: H11050015-001
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 04/30/11 18:30 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Sodium	4	mg/L		1		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 18:01 / dck		ICPMS204-B_110504A : 64		R70718
Zinc	0.02	mg/L		0.01		E200.8	05/05/11 16:07 / dck		ICPMS204-B_110505A : 41		R70779
METALS, TOTAL RECOVERABLE											
Aluminum	0.51	mg/L		0.03		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Antimony	ND	mg/L		0.003		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Barium	0.783	mg/L		0.005		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Cadmium	0.00011	mg/L		0.00008		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Calcium	69	mg/L		1		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Chromium	0.001	mg/L		0.001		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Copper	0.008	mg/L		0.001		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Iron	0.92	mg/L		0.03		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Lead	0.0015	mg/L		0.0005		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Magnesium	15	mg/L		1		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Manganese	0.028	mg/L		0.005		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Mercury	0.00001	mg/L		0.00001		E245.1	05/10/11 15:44 / stp	05/10/11 12:02	HGCV201-H_110510A : 11		12157
Nickel	ND	mg/L		0.01		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Potassium	2	mg/L		1		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Selenium	ND	mg/L		0.001		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Silver	ND	mg/L		0.0005		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Sodium	4	mg/L		1		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052
Zinc	0.02	mg/L		0.01		E200.8	05/04/11 18:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 77		12052

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW05
Lab ID: H11050015-002
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 10:20 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	05/03/11 17:01 / zeg		MAN-TECH_110503A : 19		R70695
Conductivity	282	umhos/cm		1		A2510 B	05/03/11 11:24 / cmm		COND_110503A : 910503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	12	mg/L		10		A2540 D	05/03/11 13:34 / cmm	05/03/11 13:10 J-124 (14410200)_110503A : 7			12063
Solids, Total Dissolved TDS @ 180 C	122	mg/L		10		A2540 C	05/03/11 13:56 / cmm	05/03/11 13:17 J-124 (14410200)_110503B : 5			12065
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		4		A2320 B	05/03/11 17:01 / zeg		MAN-TECH_110503A : 18		R70695
Bicarbonate as HCO3	190	mg/L		4		A2320 B	05/03/11 17:01 / zeg		MAN-TECH_110503A : 18		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 17:01 / zeg		MAN-TECH_110503A : 18		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 19:57 / zeg		IC101-H_110503B : 20		R70698
Sulfate	7	mg/L		1		E300.0	05/03/11 19:57 / zeg		IC101-H_110503B : 20		R70698
Hardness as CaCO3	153	mg/L		1		A2340 B	05/06/11 09:58 / sld		WATERCALC_110506A : 2		R70790
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Barium	0.272	mg/L		0.005		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Cadmium	ND	mg/L	D	0.00009		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Calcium	33	mg/L		1		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Copper	ND	mg/L		0.001		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Iron	ND	mg/L		0.05		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Magnesium	17	mg/L		1		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Manganese	ND	mg/L		0.005		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/05/11 16:33 / dck		ICPMS204-B_110505A : 47		R70779
Nickel	ND	mg/L		0.01		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Potassium	2	mg/L		1		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW05
Lab ID: H11050015-002
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 10:20 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Sodium	3	mg/L		1	E200.8		05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
Zinc	ND	mg/L		0.01	E200.8		05/04/11 19:20 / dck		ICPMS204-B_110504A : 82		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.24	mg/L		0.03	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Antimony	ND	mg/L		0.003	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Arsenic	ND	mg/L		0.003	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Barium	0.278	mg/L		0.005	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Beryllium	ND	mg/L		0.001	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Cadmium	ND	mg/L	D	0.00009	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Calcium	35	mg/L		1	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Chromium	0.001	mg/L		0.001	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Cobalt	ND	mg/L		0.01	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Copper	ND	mg/L		0.001	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Iron	0.24	mg/L		0.03	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Lead	0.0005	mg/L		0.0005	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Magnesium	18	mg/L		1	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Manganese	0.007	mg/L		0.005	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Mercury	ND	mg/L		0.00001	E245.1		05/10/11 15:46 / stp	05/10/11 12:02	HGCV201-H_110510A : 12		12157
Nickel	ND	mg/L		0.01	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Potassium	2	mg/L		1	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Selenium	ND	mg/L		0.001	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Silver	ND	mg/L		0.0005	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Sodium	3	mg/L		1	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052
Zinc	ND	mg/L		0.01	E200.8		05/04/11 19:25 / dck	05/03/11 11:35	ICPMS204-B_110504A : 83		12052

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW03
Lab ID: H11050015-003
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 12:00 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	05/03/11 17:08 / zeg		MAN-TECH_110503A : 21		R70695
Conductivity	319	umhos/cm		1		A2510 B	05/03/11 11:24 / cmm		COND_110503A : 1010503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	16	mg/L		10		A2540 D	05/03/11 13:34 / cmm	05/03/11 13:10 J-124 (14410200)_110503A : 8			12063
Solids, Total Dissolved TDS @ 180 C	184	mg/L		10		A2540 C	05/03/11 13:57 / cmm	05/03/11 13:17 J-124 (14410200)_110503B : 7			12065
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		4		A2320 B	05/03/11 17:08 / zeg		MAN-TECH_110503A : 20		R70695
Bicarbonate as HCO3	220	mg/L		4		A2320 B	05/03/11 17:08 / zeg		MAN-TECH_110503A : 20		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 17:08 / zeg		MAN-TECH_110503A : 20		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 20:12 / zeg		IC101-H_110503B : 21		R70698
Sulfate	5	mg/L		1		E300.0	05/03/11 20:12 / zeg		IC101-H_110503B : 21		R70698
Hardness as CaCO3	136	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 1		R70750
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Barium	0.288	mg/L		0.005		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Cadmium	ND	mg/L	D	0.00009		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Calcium	39	mg/L		1		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Chromium	0.001	mg/L		0.001		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Copper	0.001	mg/L		0.001		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Iron	ND	mg/L		0.05		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Magnesium	9	mg/L		1		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Manganese	0.188	mg/L		0.005		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Nickel	ND	mg/L		0.01		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Potassium	2	mg/L		1		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW03
Lab ID: H11050015-003
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 12:00 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Sodium	20	mg/L		1	E200.8		05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
Zinc	ND	mg/L		0.01	E200.8		05/04/11 19:29 / dck		ICPMS204-B_110504A : 84		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.39	mg/L		0.03	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Antimony	ND	mg/L		0.003	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Arsenic	ND	mg/L		0.003	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Barium	0.305	mg/L		0.005	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Beryllium	ND	mg/L		0.001	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Cadmium	ND	mg/L	D	0.00009	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Calcium	41	mg/L		1	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Chromium	0.002	mg/L		0.001	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Cobalt	ND	mg/L		0.01	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Copper	0.002	mg/L		0.001	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Iron	0.30	mg/L		0.03	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Lead	0.0005	mg/L		0.0005	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Magnesium	10	mg/L		1	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Manganese	0.246	mg/L		0.005	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Mercury	ND	mg/L		0.00001	E245.1		05/10/11 15:49 / stp	05/10/11 12:02	HGCV201-H_110510A : 13		12157
Nickel	ND	mg/L		0.01	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Potassium	3	mg/L		1	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Selenium	ND	mg/L		0.001	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Silver	ND	mg/L		0.0005	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Sodium	20	mg/L		1	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052
Zinc	ND	mg/L		0.01	E200.8		05/04/11 19:33 / dck	05/03/11 11:35	ICPMS204-B_110504A : 85		12052

Report Definitions: RL - Analyte reporting limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW08
Lab ID: H11050015-004
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 12:45 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	4.6	s.u.		0.1		A4500-H B	05/03/11 17:12 / zeg		MAN-TECH_110503A : 23		R70695
Conductivity	8	umhos/cm		1		A2510 B	05/03/11 11:25 / cmm		COND_110503A : 110503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:34 / cmm	05/03/11 13:10 J-124 (14410200)_110503A : 9			12063
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	05/03/11 13:57 / cmm	05/03/11 13:17 J-124 (14410200)_110503B : 8			12065
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	05/03/11 17:12 / zeg		MAN-TECH_110503A : 22		R70695
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	05/03/11 17:12 / zeg		MAN-TECH_110503A : 22		R70695
Carbonate as CO ₃	ND	mg/L		4		A2320 B	05/03/11 17:12 / zeg		MAN-TECH_110503A : 22		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 20:28 / zeg		IC101-H_110503B : 22		R70698
Sulfate	ND	mg/L		1		E300.0	05/03/11 20:28 / zeg		IC101-H_110503B : 22		R70698
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 2		R70750
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Barium	ND	mg/L		0.005		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Calcium	ND	mg/L		1		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Copper	ND	mg/L		0.001		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Iron	ND	mg/L		0.05		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Magnesium	ND	mg/L		1		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Manganese	ND	mg/L		0.005		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Nickel	ND	mg/L		0.01		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 MW08

Lab ID: H11050015-004

Matrix: Groundwater

Project: Section 35 Groundwater Baseline

Collection Date: 05/01/11 12:45

Date Received: 05/02/11

Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Sodium	ND	mg/L		1	E200.8		05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
Zinc	ND	mg/L		0.01	E200.8		05/04/11 19:56 / dck		ICPMS204-B_110504A : 90		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Antimony	ND	mg/L		0.003	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Arsenic	ND	mg/L		0.003	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Barium	ND	mg/L		0.005	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Beryllium	ND	mg/L		0.001	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Cadmium	ND	mg/L		0.00008	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Calcium	ND	mg/L		1	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Chromium	ND	mg/L		0.001	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Cobalt	ND	mg/L		0.01	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Copper	ND	mg/L		0.001	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Iron	ND	mg/L		0.03	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Lead	ND	mg/L		0.0005	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Magnesium	ND	mg/L		1	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Manganese	ND	mg/L		0.005	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Mercury	ND	mg/L		0.00001	E200.8		05/05/11 16:38 / dck		ICPMS204-B_110505A : 48		R70779
Nickel	ND	mg/L		0.01	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Potassium	ND	mg/L		1	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Selenium	ND	mg/L		0.001	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Silver	ND	mg/L		0.0005	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Sodium	ND	mg/L		1	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718
Zinc	ND	mg/L		0.01	E200.8		05/04/11 20:00 / dck		ICPMS204-B_110504A : 91		R70718

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW07
Lab ID: H11050015-005
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 13:45 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	05/03/11 17:19 / zeg		MAN-TECH_110503A : 25		R70695
Conductivity	229	umhos/cm		1		A2510 B	05/03/11 11:26 / cmm		COND_110503A : 1210503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	556	mg/L		10		A2540 D	05/03/11 13:35 / cmm	05/03/11 13:10-124 (14410200)_110503A : 10			12063
Solids, Total Dissolved TDS @ 180 C	140	mg/L		10		A2540 C	05/03/11 13:57 / cmm	05/03/11 13:17 J-124 (14410200)_110503B : 9			12065
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L		4		A2320 B	05/03/11 17:19 / zeg		MAN-TECH_110503A : 24		R70695
Bicarbonate as HCO ₃	150	mg/L		4		A2320 B	05/03/11 17:19 / zeg		MAN-TECH_110503A : 24		R70695
Carbonate as CO ₃	ND	mg/L		4		A2320 B	05/03/11 17:19 / zeg		MAN-TECH_110503A : 24		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 20:43 / zeg		IC101-H_110503B : 23		R70698
Sulfate	2	mg/L		1		E300.0	05/03/11 20:43 / zeg		IC101-H_110503B : 23		R70698
Hardness as CaCO ₃	114	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 3		R70750
METALS, DISSOLVED											
Aluminum	0.09	mg/L		0.03		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Barium	0.231	mg/L		0.005		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Cadmium	ND	mg/L	D	0.00009		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Calcium	34	mg/L		1		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Copper	0.001	mg/L		0.001		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Iron	0.19	mg/L		0.05		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Magnesium	7	mg/L		1		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Manganese	0.059	mg/L		0.005		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Nickel	ND	mg/L		0.01		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Potassium	3	mg/L		1		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 MW07

Lab ID: H11050015-005

Matrix: Groundwater

Project: Section 35 Groundwater Baseline

Collection Date: 05/01/11 13:45

Date Received: 05/02/11

Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Sodium	2	mg/L		1	E200.8		05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
Zinc	ND	mg/L		0.01	E200.8		05/04/11 20:18 / dck		ICPMS204-B_110504A : 95		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	5.38	mg/L		0.03	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Antimony	ND	mg/L		0.003	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Arsenic	0.003	mg/L		0.003	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Barium	0.323	mg/L		0.005	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Beryllium	ND	mg/L		0.001	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Cadmium	ND	mg/L	D	0.0002	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Calcium	37	mg/L		1	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Chromium	0.031	mg/L		0.001	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Cobalt	ND	mg/L		0.01	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Copper	0.007	mg/L		0.001	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Iron	5.31	mg/L		0.03	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Lead	0.0042	mg/L		0.0005	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Magnesium	9	mg/L		1	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Manganese	0.232	mg/L		0.005	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Mercury	ND	mg/L		0.00001	E245.1		05/10/11 15:56 / stp	05/10/11 12:02	HGCV201-H_110510A : 16		12157
Nickel	ND	mg/L		0.01	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Potassium	5	mg/L		1	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Selenium	ND	mg/L		0.001	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Silver	ND	mg/L		0.0005	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Sodium	3	mg/L		1	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052
Zinc	0.03	mg/L		0.01	E200.8		05/04/11 20:23 / dck	05/03/11 11:35	ICPMS204-B_110504A : 96		12052

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW04
Lab ID: H11050015-006
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 14:00 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	05/03/11 17:34 / zeg		MAN-TECH_110503A : 29		R70695
Conductivity	230	umhos/cm		1		A2510 B	05/03/11 11:26 / cmm		COND_110503A : 1310503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	474	mg/L		10		A2540 D	05/03/11 13:35 / cmm	05/03/11 13:10-124 (14410200)_110503A : 11			12063
Solids, Total Dissolved TDS @ 180 C	144	mg/L		10		A2540 C	05/03/11 13:57 / cmm	05/03/11 13:17-124 (14410200)_110503B : 10			12065
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L		4		A2320 B	05/03/11 17:34 / zeg		MAN-TECH_110503A : 28		R70695
Bicarbonate as HCO ₃	150	mg/L		4		A2320 B	05/03/11 17:34 / zeg		MAN-TECH_110503A : 28		R70695
Carbonate as CO ₃	ND	mg/L		4		A2320 B	05/03/11 17:34 / zeg		MAN-TECH_110503A : 28		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 20:59 / zeg		IC101-H_110503B : 24		R70698
Sulfate	2	mg/L		1		E300.0	05/03/11 20:59 / zeg		IC101-H_110503B : 24		R70698
Hardness as CaCO ₃	111	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 4		R70750
METALS, DISSOLVED											
Aluminum	0.11	mg/L		0.03		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Barium	0.234	mg/L		0.005		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Cadmium	ND	mg/L	D	0.00009		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Calcium	33	mg/L		1		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Copper	0.001	mg/L		0.001		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Iron	0.11	mg/L		0.05		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Magnesium	7	mg/L		1		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Manganese	0.059	mg/L		0.005		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Nickel	ND	mg/L		0.01		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Potassium	3	mg/L		1		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW04
Lab ID: H11050015-006
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 14:00 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Sodium	2	mg/L		1	E200.8		05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
Zinc	ND	mg/L		0.01	E200.8		05/04/11 20:27 / dck		ICPMS204-B_110504A : 97		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	3.88	mg/L		0.03	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Antimony	ND	mg/L		0.003	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Arsenic	ND	mg/L		0.003	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Barium	0.296	mg/L		0.005	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Beryllium	ND	mg/L		0.001	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Cadmium	0.00012	mg/L	D	0.00009	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Calcium	36	mg/L		1	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Chromium	0.025	mg/L		0.001	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Cobalt	ND	mg/L		0.01	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Copper	0.006	mg/L		0.001	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Iron	4.22	mg/L		0.03	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Lead	0.0033	mg/L		0.0005	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Magnesium	8	mg/L		1	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Manganese	0.193	mg/L		0.005	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Mercury	ND	mg/L		0.00001	E245.1		05/10/11 15:58 : stp	05/10/11 12:02	HGCV201-H_110510A : 17		12157
Nickel	ND	mg/L		0.01	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Potassium	4	mg/L		1	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Selenium	ND	mg/L		0.001	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Silver	ND	mg/L		0.0005	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Sodium	3	mg/L		1	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052
Zinc	0.02	mg/L		0.01	E200.8		05/04/11 20:31 / dck	05/03/11 11:35	ICPMS204-B_110504A : 98		12052

Report Definitions: RL - Analyte reporting limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW06
Lab ID: H11050015-007
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 15:45 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	05/03/11 17:41 / zeg		MAN-TECH_110503A : 31		R70695
Conductivity	329	umhos/cm		1		A2510 B	05/03/11 11:27 / cmm		COND_110503A : 1410503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	48	mg/L		10		A2540 D	05/03/11 13:36 / cmm	05/03/11 13:10-124 (14410200)_110503A : 12			12063
Solids, Total Dissolved TDS @ 180 C	197	mg/L		10		A2540 C	05/03/11 13:58 / cmm	05/03/11 13:17-124 (14410200)_110503B : 11			12065
INORGANICS											
Alkalinity, Total as CaCO ₃	180	mg/L		4		A2320 B	05/03/11 17:41 / zeg		MAN-TECH_110503A : 30		R70695
Bicarbonate as HCO ₃	220	mg/L		4		A2320 B	05/03/11 17:41 / zeg		MAN-TECH_110503A : 30		R70695
Carbonate as CO ₃	ND	mg/L		4		A2320 B	05/03/11 17:41 / zeg		MAN-TECH_110503A : 30		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 21:45 / zeg		IC101-H_110503B : 27		R70698
Sulfate	1	mg/L		1		E300.0	05/03/11 21:45 / zeg		IC101-H_110503B : 27		R70698
Hardness as CaCO ₃	183	mg/L		1		A2340 B	05/06/11 09:58 / sld		WATERCALC_110506A : 3		R70790
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Barium	0.738	mg/L		0.005		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Calcium	51	mg/L		1		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Copper	0.001	mg/L		0.001		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Iron	ND	mg/L		0.05		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Magnesium	13	mg/L		1		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Manganese	ND	mg/L		0.005		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/05/11 17:13 / dck		ICPMS204-B_110505A : 56		R70779
Nickel	ND	mg/L		0.01		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Potassium	1	mg/L		1		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW06
Lab ID: H11050015-007
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 15:45 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Sodium	5	mg/L		1		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
Zinc	ND	mg/L		0.01		E200.8	05/04/11 20:53 / dck		ICPMS204-B_110504A : 103		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	1.58	mg/L		0.03		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Antimony	ND	mg/L		0.003		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Barium	0.790	mg/L		0.005		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Calcium	50	mg/L		1		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Chromium	0.005	mg/L		0.001		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Copper	0.004	mg/L		0.001		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Iron	1.34	mg/L		0.03		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Lead	0.0009	mg/L		0.0005		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Magnesium	13	mg/L		1		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Manganese	0.031	mg/L		0.005		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:01 / stp	05/10/11 12:02	HGCV201-H_110510A : 18		12157
Nickel	ND	mg/L		0.01		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Potassium	2	mg/L		1		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Selenium	ND	mg/L		0.001		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Silver	0.0007	mg/L		0.0005		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Sodium	5	mg/L		1		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052
Zinc	ND	mg/L		0.01		E200.8	05/04/11 20:58 / dck	05/03/11 11:35	ICPMS204-B_110504A : 104		12052

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 MW09
Lab ID: H11050015-008
Matrix: Groundwater

Project: Section 35 Groundwater Baseline
Collection Date: 05/01/11 16:00 **Date Received:** 05/02/11
Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.2	s.u.		0.1		A4500-H B	05/03/11 17:45 / zeg		MAN-TECH_110503A : 33		R70695
Conductivity	5	umhos/cm		1		A2510 B	05/03/11 11:27 / cmm		COND_110503A : 1510503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:36 / cmm	05/03/11 13:10-124 (14410200)_110503A : 13			12063
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	05/03/11 13:58 / cmm	05/03/11 13:17-124 (14410200)_110503B : 12			12065
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	05/03/11 17:45 / zeg		MAN-TECH_110503A : 32		R70695
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	05/03/11 17:45 / zeg		MAN-TECH_110503A : 32		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 17:45 / zeg		MAN-TECH_110503A : 32		R70695
Chloride	ND	mg/L		1		E300.0	05/03/11 22:00 / zeg		IC101-H_110503B : 28		R70698
Sulfate	ND	mg/L		1		E300.0	05/03/11 22:00 / zeg		IC101-H_110503B : 28		R70698
Hardness as CaCO3	ND	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 5		R70750
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Barium	ND	mg/L		0.005		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Calcium	ND	mg/L		1		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Copper	ND	mg/L		0.001		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Iron	ND	mg/L		0.05		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Magnesium	ND	mg/L		1		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Manganese	ND	mg/L		0.005		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Nickel	ND	mg/L		0.01		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 MW09

Lab ID: H11050015-008

Matrix: Groundwater

Project: Section 35 Groundwater Baseline

Collection Date: 05/01/11 16:00

Date Received: 05/02/11

Report Date: 05/16/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Sodium	ND	mg/L		1		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
Zinc	ND	mg/L		0.01		E200.8	05/04/11 21:02 / dck		ICPMS204-B_110504A : 105		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Antimony	ND	mg/L		0.003		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Barium	ND	mg/L		0.005		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Calcium	ND	mg/L		1		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Chromium	ND	mg/L		0.001		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Copper	ND	mg/L		0.001		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Iron	ND	mg/L		0.03		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Lead	ND	mg/L		0.0005		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Magnesium	ND	mg/L		1		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Manganese	ND	mg/L		0.005		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Mercury	ND	mg/L		0.00001		E200.8	05/05/11 17:17 / dck		ICPMS204-B_110505A : 57		R70779
Nickel	ND	mg/L		0.01		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Selenium	ND	mg/L		0.001		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Silver	ND	mg/L		0.0005		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Sodium	ND	mg/L		1		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718
Zinc	ND	mg/L		0.01		E200.8	05/04/11 21:07 / dck		ICPMS204-B_110504A : 106		R70718

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 110503A-COND-PROBE

Run ID :Run Order: COND_110503A: 6		SampType: Initial Calibration Verification Standard				Sample ID: ICV1_110503A				Method: A2510 B		
Analysis Date:	05/03/11 11:03	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		978	1.0	1000		98	90	110				

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: COND_110503A: 8		SampType: Sample Duplicate				Sample ID: H11050015-001ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:23	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		428	1.0				422.9			1.2	10	

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: COND_110503A: 19		SampType: Sample Duplicate				Sample ID: H11050018-003ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:33	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		9.64	1.0				9.6			0.5	10	

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: COND_110503A: 31		SampType: Sample Duplicate				Sample ID: H11050028-005ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:46	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		182	1.0				181.7			0.4	10	

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 110510wa

Run ID :Run Order: HGCV201-H_110510A: 6	SampType: Initial Calibration Verification Standard	Sample ID: ICV	Method: E245.1
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Analysis Date: 05/10/11 15:32	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00019	0.00010	0.0002		95	90	110			
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Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Run ID :Run Order: HGCV201-H_110510A: 7	SampType: Continuing Calibration Verification Standard	Sample ID: CCV	Method: E245.1
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Analysis Date: 05/10/11 15:34	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00020	0.00010	0.0002		102	95	105			
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Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 69		SampType: Method Blank			Sample ID: MB-12052			Method: E200.8			
Analysis Date: 05/04/11 18:23		Units: mg/L			Prep Info: Prep Date: 5/3/2011			Prep Method: E200.2			
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.0007									
Antimony	ND	4E-05									
Arsenic	0.0002	5E-05									
Barium	0.0002	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	ND	6E-05									
Cobalt	ND	3E-05									
Copper	ND	0.0004									
Iron	ND	0.0006									
Lead	ND	2E-05									
Magnesium	0.004	0.003									
Manganese	ND	6E-05									
Nickel	ND	0.0002									
Potassium	ND	0.07									
Selenium	ND	0.0002									
Silver	ND	6E-05									
Sodium	0.1	0.04									
Thallium	ND	2E-05									
Vanadium	0.0001	5E-05									
Zinc	0.0009	0.0003									

Associated samples: H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C

Run ID :Run Order: ICPMS204-B_110504A: 70		SampType: Laboratory Control Sample			Sample ID: LCS-12052			Method: E200.8			
Analysis Date: 05/04/11 18:28		Units: mg/L			Prep Info: Prep Date: 5/3/2011			Prep Method: E200.2			
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.47	0.10	2.5	0.001809	99	85	115				
Antimony	0.533	0.0050	0.5		107	85	115				
Arsenic	0.528	0.0050	0.5	0.0001528	106	85	115				
Barium	0.512	0.10	0.5	0.0002495	102	85	115				
Beryllium	0.265	0.0010	0.25		106	85	115				
Cadmium	0.264	0.0010	0.25		106	85	115				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 70		SampType: Laboratory Control Sample			Sample ID: LCS-12052			Method: E200.8				
Analysis Date: 05/04/11 18:28		Units: mg/L			Prep Info:		Prep Date: 5/3/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		27.9	1.0	25		112	85	115				
Chromium		0.525	0.010	0.5		105	85	115				
Cobalt		0.509	0.010	0.5		102	85	115				
Copper		0.530	0.010	0.5		106	85	115				
Iron		2.71	0.030	2.5		108	85	115				
Lead		0.525	0.010	0.5		105	85	115				
Magnesium		26.2	1.0	25	0.004364	105	85	115				
Manganese		2.48	0.010	2.5		99	85	115				
Nickel		0.528	0.010	0.5		106	85	115				
Potassium		26.2	1.0	25		105	85	115				
Selenium		0.530	0.0050	0.5		106	85	115				
Silver		0.0499	0.0050	0.05		100	85	115				
Sodium		26.5	1.0	25	0.1355	105	85	115				
Thallium		0.528	0.0050	0.5		106	85	115				
Vanadium		0.532	0.10	0.5	0.0001296	106	85	115				
Zinc		0.534	0.010	0.5	0.0009246	107	85	115				

Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Run ID :Run Order: ICPMS204-B_110504A: 78		SampType: Sample Matrix Spike			Sample ID: H11050015-001CMS3			Method: E200.8				
Analysis Date: 05/04/11 19:03		Units: mg/L			Prep Info:		Prep Date: 5/3/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		3.32	0.10	2.5	0.5105	112	70	130				
Antimony		0.508	0.0050	0.5	0.0004997	102	70	130				
Arsenic		0.507	0.0050	0.5	0.001216	101	70	130				
Barium		1.25	0.10	0.5	0.7832	94	70	130				
Beryllium		0.242	0.0010	0.25	0.0000304	97	70	130				
Cadmium		0.253	0.0010	0.25	0.0001095	101	70	130				
Calcium		94.3	1.0	25	68.77	102	70	130				
Chromium		0.504	0.010	0.5	0.001351	100	70	130				
Cobalt		0.497	0.010	0.5	0.0005267	99	70	130				
Copper		0.511	0.010	0.5	0.007801	101	70	130				
Iron		3.64	0.030	2.5	0.9188	109	70	130				
Lead		0.509	0.010	0.5	0.001487	101	70	130				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 78		SampType: Sample Matrix Spike			Sample ID: H11050015-001CMS3				Method: E200.8			
Analysis Date: 05/04/11 19:03		Units: mg/L			Prep Info:		Prep Date: 5/3/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium		39.4	1.0	25	15.26	96	70	130				
Manganese		2.48	0.010	2.5	0.0276	98	70	130				
Nickel		0.501	0.010	0.5	0.001447	100	70	130				
Potassium		27.2	1.0	25	1.933	101	70	130				
Selenium		0.504	0.0050	0.5	0.0001836	101	70	130				
Silver		0.0483	0.0050	0.05	0.0004189	96	70	130				
Sodium		29.4	1.0	25	4.459	100	70	130				
Thallium		0.507	0.0050	0.5	0.000022	101	70	130				
Vanadium		0.510	0.10	0.5	0.0006825	102	70	130				
Zinc		0.518	0.010	0.5	0.02105	99	70	130				

Associated samples: H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C

Run ID :Run Order: ICPMS204-B_110504A: 79		SampType: Sample Matrix Spike Duplicate			Sample ID: H11050015-001CMSD3				Method: E200.8			
Analysis Date: 05/04/11 19:07		Units: mg/L			Prep Info:		Prep Date: 5/3/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		3.30	0.10	2.5	0.5105	112	70	130	3.321	0.6	20	
Antimony		0.514	0.0050	0.5	0.0004997	103	70	130	0.508	1.2	20	
Arsenic		0.507	0.0050	0.5	0.001216	101	70	130	0.507	0.0	20	
Barium		1.26	0.10	0.5	0.7832	95	70	130	1.252	0.3	20	
Beryllium		0.246	0.0010	0.25	0.0000304	98	70	130	0.2418	1.6	20	
Cadmium		0.255	0.0010	0.25	0.0001095	102	70	130	0.2527	0.9	20	
Calcium		94.4	1.0	25	68.77	102	70	130	94.26	0.1	20	
Chromium		0.512	0.010	0.5	0.001351	102	70	130	0.5036	1.6	20	
Cobalt		0.497	0.010	0.5	0.0005267	99	70	130	0.4967	0.0	20	
Copper		0.511	0.010	0.5	0.007801	101	70	130	0.5106	0.0	20	
Iron		3.44	0.030	2.5	0.9188	101	70	130	3.645	5.7	20	
Lead		0.512	0.010	0.5	0.001487	102	70	130	0.5087	0.7	20	
Magnesium		39.8	1.0	25	15.26	98	70	130	39.38	1.1	20	
Manganese		2.48	0.010	2.5	0.0276	98	70	130	2.478	0.2	20	
Nickel		0.506	0.010	0.5	0.001447	101	70	130	0.5013	1.0	20	
Potassium		27.4	1.0	25	1.933	102	70	130	27.2	0.6	20	
Selenium		0.480	0.0050	0.5	0.0001836	96	70	130	0.5037	4.8	20	
Silver		0.0488	0.0050	0.05	0.0004189	97	70	130	0.04826	1.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 23 of 51

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 79 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-001CMSD3 Method: E200.8

Analysis Date: 05/04/11 19:07 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	30.0	1.0	25	4.459	102	70	130	29.4	2.1	20	
Thallium	0.509	0.0050	0.5	0.000022	102	70	130	0.5066	0.4	20	
Vanadium	0.515	0.10	0.5	0.0006825	103	70	130	0.51	1.0	20	
Zinc	0.522	0.010	0.5	0.02105	100	70	130	0.5181	0.7	20	

Associated samples: H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C

Run ID :Run Order: ICPMS204-B_110505A: 46 SampType: Method Blank Sample ID: MB-12052 Method: E200.8

Analysis Date: 05/05/11 16:29 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.0007									
Antimony	ND	4E-05									
Arsenic	0.0002	5E-05									
Barium	0.0002	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	ND	6E-05									
Cobalt	ND	3E-05									
Copper	ND	0.0004									
Iron	0.002	0.0006									
Lead	ND	2E-05									
Magnesium	0.004	0.003									
Manganese	ND	6E-05									
Nickel	ND	0.0002									
Potassium	ND	0.07									
Selenium	0.02										
Silver	ND	6E-05									
Sodium	0.2	0.04									
Thallium	ND	2E-05									
Vanadium	0.0002	5E-05									
Zinc	0.0009	0.0003									

Associated samples: H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 24 of 51

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12063

Run ID :Run Order:	ACCU-124 (14410200)_110503A: 1	SampType:	Method Blank	Sample ID:	MB-12063	Method:	A2540 D
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Analysis Date:	05/03/11 13:29	Units:	mg/L	Prep Info:	Prep Date:	5/3/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	1										
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order:	ACCU-124 (14410200)_110503A: 2	SampType:	Laboratory Control Sample	Sample ID:	LCS-12063	Method:	A2540 D
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Analysis Date:	05/03/11 13:29	Units:	mg/L	Prep Info:	Prep Date:	5/3/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	2060	10	2000	103		70	130					
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order:	ACCU-124 (14410200)_110503A: 5	SampType:	Sample Duplicate	Sample ID:	H11050013-002BDUP	Method:	A2540 D
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Analysis Date:	05/03/11 13:33	Units:	mg/L	Prep Info:	Prep Date:	5/3/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	30.0	10				36	18	5	R			
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order:	ACCU-124 (14410200)_110503A: 16	SampType:	Sample Duplicate	Sample ID:	H11050018-002ADUP	Method:	A2540 D
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Analysis Date:	05/03/11 13:37	Units:	mg/L	Prep Info:	Prep Date:	5/3/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	10								5		
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12065

Run ID :Run Order: ACCU-124 (14410200)_110503B: 1	SampType: Method Blank	Sample ID: MB-12065	Method: A2540 C
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Analysis Date: 05/03/11 13:55	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	ND	1.0									
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 2	SampType: Laboratory Control Sample	Sample ID: LCS-12065	Method: A2540 C
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Analysis Date: 05/03/11 13:55	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	1860	10	2000		93	90	110				
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 4	SampType: Sample Duplicate	Sample ID: H11050015-001ADUP	Method: A2540 C
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Analysis Date: 05/03/11 13:56	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	272	10				264	3.0	5			
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 6	SampType: Sample Matrix Spike	Sample ID: H11050015-002AMS	Method: A2540 C
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Analysis Date: 05/03/11 13:56	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	2120	10	2000	122	100	80	120				
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 16	SampType: Sample Duplicate	Sample ID: H11050018-002ADUP	Method: A2540 C
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Analysis Date: 05/03/11 14:01	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	378	10				364	3.8	5			
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: 12157

Run ID :Run Order: HGCV201-H_110510A: 9	SampType: Method Blank				Sample ID: MB-12157				Method: E245.1		
Analysis Date: 05/10/11 15:39	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1.0E-05									

Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Run ID :Run Order: HGCV201-H_110510A: 10	SampType: Laboratory Control Sample				Sample ID: LCS-12157				Method: E245.1		
Analysis Date: 05/10/11 15:41	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002		93	90	110				

Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Run ID :Run Order: HGCV201-H_110510A: 14	SampType: Sample Matrix Spike				Sample ID: H11050015-003CMS				Method: E245.1		
Analysis Date: 05/10/11 15:51	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002		101	70	130				

Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Run ID :Run Order: HGCV201-H_110510A: 15	SampType: Sample Matrix Spike Duplicate				Sample ID: H11050015-003CMSD				Method: E245.1		
Analysis Date: 05/10/11 15:53	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002		99	70	130	0.0002011	1.2	30	

Associated samples: **H11050015-001C; H11050015-002C; H11050015-003C; H11050015-005C; H11050015-006C; H11050015-007C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: Section 35 Groundwater Baseline

BatchID: R70695

Date: 31-May-11

Run ID :Run Order: MAN-TECH_110503A: 8	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
Analysis Date: 05/03/11 16:16	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	2	0.6	

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 10	SampType: Laboratory Control Sample	Sample ID: LCS-04292011	Method: A2320 B
Analysis Date: 05/03/11 16:24	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	610	4.0	600 1.94 101 90 110

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 16	SampType: Sample Duplicate	Sample ID: H11050015-001ADUP	Method: A2320 B
Analysis Date: 05/03/11 16:54	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	240	4.0	237.6 0.3 20
Bicarbonate as HCO3	290	4.0	289.8 0.3 20
Carbonate as CO3	ND	4.0	20

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 26	SampType: Sample Matrix Spike	Sample ID: H11050015-005AMS	Method: A2320 B
Analysis Date: 05/03/11 17:27	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	690	4.0	600 122.2 95 90 110

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 40	SampType: Sample Duplicate	Sample ID: H11050018-003ADUP	Method: A2320 B
Analysis Date: 05/03/11 18:04	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	ND	4.0	20
Bicarbonate as HCO3	ND	4.0	20
Carbonate as CO3	ND	4.0	20

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70695

Run ID :Run Order:	MAN-TECH_110503A: 40	SampType:	Sample Duplicate	Sample ID:	H11050018-003ADUP	Method:	A2320 B
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Analysis Date:	05/03/11 18:04	Units:	mg/L	Prep Info:	Prep Date:	Prep Method:		
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Analytes	3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70695

Run ID :Run Order: MAN-TECH_110503A: 2		SampType: Continuing Calibration Verification Standard			Sample ID: CCV1-1905			Method: A4500-H B				
Analysis Date: 05/03/11 15:58		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		3.91	0.10	4		98	98	102				

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 3		SampType: Continuing Calibration Verification Standard			Sample ID: CCV-1943			Method: A4500-H B				
Analysis Date: 05/03/11 16:01		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		6.95	0.10	7		99	98	102				

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 4		SampType: Continuing Calibration Verification Standard			Sample ID: CCV3-1664			Method: A4500-H B				
Analysis Date: 05/03/11 16:04		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		10.0	0.10	10		100	98	110				

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 5		SampType: Initial Calibration Verification Standard			Sample ID: ICV-1942			Method: A4500-H B				
Analysis Date: 05/03/11 16:07		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		6.97	0.10	7		100	99	101				

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: MAN-TECH_110503A: 17		SampType: Sample Duplicate			Sample ID: H11050015-001ADUP			Method: A4500-H B				
Analysis Date: 05/03/11 16:54		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		8.15	0.10				8.1	8.1	8.1	0.6	0.6	3

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70695

Run ID :Run Order: MAN-TECH_110503A: 41	SampType: Sample Duplicate	Sample ID: H11050018-003ADUP	Method: A4500-H B
Analysis Date: 05/03/11 18:04	Units: s.u.	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
pH	4.58	0.10	4.77 4.1 3 R

Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70698

Run ID :Run Order: IC101-H_110503B: 13 SampType: Initial Calibration Verification Standard Sample ID: ICV050311-12 Method: E300.0

Analysis Date: 05/03/11 18:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		101	90	110				
Sulfate	410	1.0	400		103	90	110				

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: IC101-H_110503B: 14 SampType: Method Blank Sample ID: ICB050311-13 Method: E300.0

Analysis Date: 05/03/11 18:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.2									
Sulfate	ND	0.5									

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: IC101-H_110503B: 15 SampType: Laboratory Fortified Blank Sample ID: LFB050311-14 Method: E300.0

Analysis Date: 05/03/11 18:40 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48	1.0	50		96	90	110				
Sulfate	200	1.1	200		99	90	110				

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: IC101-H_110503B: 17 SampType: Continuing Calibration Verification Standard Sample ID: CCV050311-15 Method: E300.0

Analysis Date: 05/03/11 19:11 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		100	90	110				
Sulfate	400	1.0	400		100	90	110				

Associated samples: H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A

Run ID :Run Order: IC101-H_110503B: 25 SampType: Sample Matrix Spike Sample ID: H11050015-006AMS Method: E300.0

Analysis Date: 05/03/11 21:14 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49	1.0	50	0.332	97	90	110				
Sulfate	200	1.1	200	2.118	100	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70698

Run ID :Run Order: IC101-H_110503B: 25	SampType: Sample Matrix Spike	Sample ID: H11050015-006AMS	Method: E300.0
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Analysis Date: 05/03/11 21:14	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Run ID :Run Order: IC101-H_110503B: 26	SampType: Sample Matrix Spike Duplicate	Sample ID: H11050015-006AMSD	Method: E300.0
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Analysis Date: 05/03/11 21:30	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50	0.332	98	90	110	48.9	1.4	20
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Sulfate	210	1.1	200	2.118	102	90	110	201.2	2.2	20
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Associated samples: **H11050015-001A; H11050015-002A; H11050015-003A; H11050015-004A; H11050015-005A; H11050015-006A; H11050015-007A; H11050015-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 8 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 05/04/11 09:55 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.255	0.10	0.25		102	90	110				
Antimony	0.0521	0.050	0.05		104	90	110				
Arsenic	0.0506	0.0050	0.05		101	90	110				
Barium	0.0510	0.10	0.05		102	90	110				
Beryllium	0.0260	0.0010	0.025		104	90	110				
Cadmium	0.0269	0.0010	0.025		107	90	110				
Calcium	2.64	0.50	2.5		105	90	110				
Chromium	0.0501	0.010	0.05		100	90	110				
Cobalt	0.0529	0.010	0.05		106	90	110				
Copper	0.0515	0.010	0.05		103	90	110				
Iron	0.264	0.030	0.25		106	90	110				
Lead	0.0507	0.010	0.05		101	90	110				
Magnesium	2.58	0.50	2.5		103	90	110				
Manganese	0.253	0.010	0.25		101	90	110				
Mercury	0.00204	0.0010	0.002		102	90	110				
Nickel	0.0513	0.010	0.05		103	90	110				
Potassium	2.62	0.50	2.5		105	90	110				
Selenium	0.0510	0.0050	0.05		102	90	110				
Silver	0.0254	0.0050	0.025		101	90	110				
Sodium	2.61	0.50	2.5		105	90	110				
Thallium	0.0496	0.10	0.05		99	90	110				
Vanadium	0.0507	0.10	0.05		101	90	110				
Zinc	0.0523	0.010	0.05		105	90	110				

Associated samples: H11050015-001B; H11050015-001C; H11050015-002B; H11050015-002C; H11050015-003B; H11050015-003C; H11050015-004B; H11050015-004C;
H11050015-005B; H11050015-005C; H11050015-006B; H11050015-006C; H11050015-007B; H11050015-007C; H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 10:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	43.0	0.10	40		108	70	130				
Antimony	0.000347	0.050									
Arsenic	0.000190	0.0050									
Barium	0.000189	0.10									
Beryllium	8.00E-06	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 10:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000554	0.0010									
Calcium	129	0.50									
Chromium	0.00221	0.010									
Cobalt	0.00194	0.010									
Copper	0.000460	0.010									
Iron	111	0.030	100		111	70	130				
Lead	0.000117	0.010									
Magnesium	44.1	0.50									
Manganese	0.00215	0.010									
Mercury	3.50E-05	0.0010									
Nickel	0.00107	0.010									
Potassium	43.5	0.50									
Selenium	0.000295	0.0050									
Silver	0.000183	0.0050									
Sodium	109	0.50									
Thallium	4.40E-05	0.10									
Vanadium	0.000221	0.10									
Zinc	0.00115	0.010									

Associated samples: H11050015-001B; H11050015-001C; H11050015-002B; H11050015-002C; H11050015-003B; H11050015-003C; H11050015-004B; H11050015-004C;
H11050015-005B; H11050015-005C; H11050015-006B; H11050015-006C; H11050015-007B; H11050015-007C; H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 10:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.4	0.10	40		106	70	130				
Antimony	0.000346	0.050				0	0				
Arsenic	0.0111	0.0050	0.01		111	70	130				
Barium	0.000172	0.10				0	0				
Beryllium	2.10E-05	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		111	70	130				
Calcium	128	0.50	120		107	70	130				
Chromium	0.0237	0.010	0.02		119	70	130				
Cobalt	0.0248	0.010	0.02		124	70	130				
Copper	0.0217	0.010	0.02		108	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 10:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	106	0.030	100		106	70	130				
Lead	8.20E-05	0.010				0	0				
Magnesium	43.4	0.50	40		109	70	130				
Manganese	0.0238	0.010	0.02		119	70	130				
Mercury	2.40E-05	0.0010				0	0				
Nickel	0.0226	0.010	0.02		113	70	130				
Potassium	43.6	0.50	40		109	70	130				
Selenium	0.0103	0.0050	0.01		103	70	130				
Silver	0.0216	0.0050	0.02		108	70	130				
Sodium	109	0.50	100		109	70	130				
Thallium	1.50E-05	0.10				0	0				
Vanadium	0.0223	0.10	0.02		111	70	130				
Zinc	0.0112	0.010	0.01		112	70	130				

Associated samples: H11050015-001B; H11050015-001C; H11050015-002B; H11050015-002C; H11050015-003B; H11050015-003C; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-005C; H11050015-006B; H11050015-006C; H11050015-007B; H11050015-007C; H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 05/04/11 10:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0003									
Antimony	ND	7E-06									
Arsenic	ND	3E-05									
Barium	ND	3E-05									
Beryllium	ND	2E-05									
Cadmium	ND	1E-05									
Calcium	ND	0.003									
Chromium	ND	6E-05									
Cobalt	ND	9E-06									
Copper	ND	3E-05									
Iron	0.001	0.0002									
Lead	1E-05	1.0E-05									
Magnesium	ND	0.0007									
Manganese	ND	1E-05									
Mercury	1E-05	9E-06									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 05/04/11 10:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	5E-05									
Potassium	ND	0.010									
Selenium	ND	4E-05									
Silver	ND	3E-05									
Sodium	0.004	0.003									
Thallium	ND	7E-06									
Vanadium	ND	1E-05									
Zinc	0.0007	0.0003									

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 05/04/11 10:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0480	0.10	0.05		96	85	115				
Antimony	0.0480	0.050	0.05		96	85	115				
Arsenic	0.0478	0.0050	0.05		96	85	115				
Barium	0.0481	0.10	0.05		96	85	115				
Beryllium	0.0479	0.0010	0.05		96	85	115				
Cadmium	0.0471	0.0010	0.05		94	85	115				
Calcium	47.8	0.50	50		96	85	115				
Chromium	0.0480	0.010	0.05		96	85	115				
Cobalt	0.0487	0.010	0.05		97	85	115				
Copper	0.0464	0.010	0.05		93	85	115				
Iron	4.92	0.030	5	0.001366	98	85	115				
Lead	0.0490	0.010	0.05	0.0000114	98	85	115				
Magnesium	46.7	0.50	50		93	85	115				
Manganese	0.0481	0.010	0.05		96	85	115				
Mercury	0.00101	0.0010	0.001	0.0000135	100	85	115				
Nickel	0.0464	0.010	0.05		93	85	115				
Potassium	47.8	0.50	50		96	85	115				
Selenium	0.0487	0.0050	0.05		97	85	115				
Silver	0.0181	0.0050	0.02		91	85	115				
Sodium	46.2	0.50	50	0.003661	92	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 05/04/11 10:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0484	0.10	0.05		97	85	115				
Vanadium	0.0478	0.10	0.05		96	85	115				
Zinc	0.0472	0.010	0.05	0.0006697	93	85	115				

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 56 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 05/04/11 17:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.247	0.10	0.25		99	90	110				
Antimony	0.0501	0.050	0.05		100	90	110				
Arsenic	0.0510	0.0050	0.05		102	90	110				
Barium	0.0491	0.10	0.05		98	90	110				
Beryllium	0.0250	0.0010	0.025		100	90	110				
Cadmium	0.0259	0.0010	0.025		104	90	110				
Calcium	2.64	0.50	2.5		106	90	110				
Chromium	0.0500	0.010	0.05		100	90	110				
Cobalt	0.0512	0.010	0.05		102	90	110				
Copper	0.0519	0.010	0.05		104	90	110				
Iron	0.272	0.030	0.25		109	90	110				
Lead	0.0502	0.010	0.05		100	90	110				
Magnesium	2.57	0.50	2.5		103	90	110				
Manganese	0.247	0.010	0.25		99	90	110				
Mercury	0.00197	0.0010	0.002		99	90	110				
Nickel	0.0516	0.010	0.05		103	90	110				
Potassium	2.54	0.50	2.5		101	90	110				
Selenium	0.0526	0.0050	0.05		105	90	110				
Silver	0.0247	0.0050	0.025		99	90	110				
Sodium	2.60	0.50	2.5		104	90	110				
Thallium	0.0490	0.10	0.05		98	90	110				
Vanadium	0.0502	0.10	0.05		100	90	110				
Zinc	0.0522	0.010	0.05		104	90	110				

Associated samples: H11050015-001B; H11050015-001C; H11050015-002B; H11050015-002C; H11050015-003B; H11050015-003C; H11050015-004B; H11050015-004C;
H11050015-005B; H11050015-005C; H11050015-006B; H11050015-006C; H11050015-007B; H11050015-007C; H11050015-008B; H11050015-008C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 57		SampType: Interference Check Sample A			Sample ID: ICSA				Method: E200.8			
Analysis Date: 05/04/11 17:30		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		38.3	0.10	40		96	70	130				
Antimony		0.000334	0.050									
Arsenic		0.000203	0.0050									
Barium		0.000151	0.10									
Beryllium		3.40E-05	0.0010									
Cadmium		0.000442	0.0010									
Calcium		118	0.50									
Chromium		0.00201	0.010									
Cobalt		0.00177	0.010									
Copper		0.000415	0.010									
Iron		97.1	0.030	100		97	70	130				
Lead		0.000120	0.010									
Magnesium		40.5	0.50									
Manganese		0.00196	0.010									
Mercury		2.30E-05	0.0010									
Nickel		0.00133	0.010									
Potassium		39.9	0.50									
Selenium		0.000237	0.0050									
Silver		0.000122	0.0050									
Sodium		101	0.50									
Thallium		4.10E-05	0.10									
Vanadium		0.000188	0.10									
Zinc		0.00105	0.010									

Associated samples: H11050015-001B; H11050015-001C; H11050015-002B; H11050015-002C; H11050015-003B; H11050015-003C; H11050015-004B; H11050015-004C;
H11050015-005B; H11050015-005C; H11050015-006B; H11050015-006C; H11050015-007B; H11050015-007C; H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 58		SampType: Interference Check Sample AB			Sample ID: ICSAB				Method: E200.8			
Analysis Date: 05/04/11 17:34		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		39.4	0.10	40		99	70	130				
Antimony		0.000317	0.050				0	0				
Arsenic		0.0106	0.0050	0.01		106	70	130				
Barium		0.000134	0.10				0	0				
Beryllium		2.10E-05	0.0010				0	0				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 58 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 17:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0103	0.0010	0.01		103	70	130				
Calcium	117	0.50	120		98	70	130				
Chromium	0.0220	0.010	0.02		110	70	130				
Cobalt	0.0228	0.010	0.02		114	70	130				
Copper	0.0203	0.010	0.02		101	70	130				
Iron	98.4	0.030	100		98	70	130				
Lead	7.30E-05	0.010				0	0				
Magnesium	40.5	0.50	40		101	70	130				
Manganese	0.0219	0.010	0.02		109	70	130				
Mercury	1.10E-05	0.0010				0	0				
Nickel	0.0216	0.010	0.02		108	70	130				
Potassium	39.7	0.50	40		99	70	130				
Selenium	0.00969	0.0050	0.01		97	70	130				
Silver	0.0196	0.0050	0.02		98	70	130				
Sodium	101	0.50	100		101	70	130				
Thallium	3.00E-06	0.10				0	0				
Vanadium	0.0207	0.10	0.02		103	70	130				
Zinc	0.0111	0.010	0.01		111	70	130				

Associated samples: H11050015-001B; H11050015-001C; H11050015-002B; H11050015-002C; H11050015-003B; H11050015-003C; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-005C; H11050015-006B; H11050015-006C; H11050015-007B; H11050015-007C; H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 65 SampType: Sample Matrix Spike Sample ID: H11050015-001BMS Method: E200.8

Analysis Date: 05/04/11 18:05 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0727	0.10	0.05	0.02824	89	70	130				
Antimony	0.0489	0.0050	0.05	0.0003018	97	70	130				
Arsenic	0.0505	0.0050	0.05	0.0003618	100	70	130				
Barium	0.772	0.10	0.05	0.7524		70	130				A
Beryllium	0.0479	0.0010	0.05		96	70	130				
Cadmium	0.0476	0.0010	0.05	0.0000583	95	70	130				
Calcium	110	1.0	50	65.99	88	70	130				
Chromium	0.0482	0.010	0.05	0.0001527	96	70	130				
Cobalt	0.0496	0.010	0.05	0.0008369	98	70	130				
Copper	0.0494	0.010	0.05	0.002942	93	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 65 SampType: Sample Matrix Spike Sample ID: H11050015-001BMS Method: E200.8

Analysis Date: 05/04/11 18:05 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4.50	0.030	5	0.03904	89	70	130				
Lead	0.0492	0.010	0.05	0.0001137	98	70	130				
Magnesium	60.5	1.0	50	14.9	91	70	130				
Manganese	0.0522	0.010	0.05	0.003971	97	70	130				
Mercury	0.00112	0.0010	0.001		112	70	130				
Nickel	0.0474	0.010	0.05	0.0007183	93	70	130				
Potassium	48.4	1.0	50	1.623	94	70	130				
Selenium	0.0498	0.0050	0.05	0.000138	99	70	130				
Silver	0.0184	0.0050	0.02		92	70	130				
Sodium	51.3	1.0	50	4.319	94	70	130				
Thallium	0.0492	0.0050	0.05		98	70	130				
Vanadium	0.0479	0.10	0.05	0.0001465	96	70	130				
Zinc	0.0606	0.010	0.05	0.01562	90	70	130				

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 66 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-001BMSD Method: E200.8

Analysis Date: 05/04/11 18:10 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0735	0.10	0.05	0.02824	91	70	130	0.07274		20	
Antimony	0.0498	0.0050	0.05	0.0003018	99	70	130	0.04888	1.9	20	
Arsenic	0.0512	0.0050	0.05	0.0003618	102	70	130	0.05046	1.4	20	
Barium	0.777	0.10	0.05	0.7524		70	130	0.7721	0.6	20	A
Beryllium	0.0474	0.0010	0.05		95	70	130	0.04794	1.1	20	
Cadmium	0.0481	0.0010	0.05	0.0000583	96	70	130	0.04757	1.2	20	
Calcium	112	1.0	50	65.99	93	70	130	110.2	1.9	20	
Chromium	0.0495	0.010	0.05	0.0001527	99	70	130	0.04818	2.7	20	
Cobalt	0.0497	0.010	0.05	0.0008369	98	70	130	0.04963	0.2	20	
Copper	0.0508	0.010	0.05	0.002942	96	70	130	0.04939	2.7	20	
Iron	4.81	0.030	5	0.03904	95	70	130	4.5	6.7	20	
Lead	0.0491	0.010	0.05	0.0001137	98	70	130	0.04918	0.2	20	
Magnesium	61.6	1.0	50	14.9	93	70	130	60.49	1.9	20	
Manganese	0.0527	0.010	0.05	0.003971	97	70	130	0.05223	0.9	20	
Mercury	0.00108	0.0010	0.001		108	70	130	0.00112	3.6	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 66 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-001BMSD Method: E200.8

Analysis Date: 05/04/11 18:10 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0485	0.010	0.05	0.0007183	96	70	130	0.0474	2.3	20	
Potassium	49.0	1.0	50	1.623	95	70	130	48.44	1.1	20	
Selenium	0.0531	0.0050	0.05	0.000138	106	70	130	0.04978	6.5	20	
Silver	0.0186	0.0050	0.02		93	70	130	0.0184	1.3	20	
Sodium	52.1	1.0	50	4.319	96	70	130	51.32	1.5	20	
Thallium	0.0487	0.0050	0.05		97	70	130	0.04921	1.0	20	
Vanadium	0.0490	0.10	0.05	0.0001465	98	70	130	0.04793		20	
Zinc	0.0631	0.010	0.05	0.01562	95	70	130	0.06061	4.1	20	

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 92 SampType: Sample Matrix Spike Sample ID: H11050015-004CMS Method: E200.8

Analysis Date: 05/04/11 20:05 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0465	0.10	0.05		93	70	130				
Antimony	0.0468	0.0050	0.05		94	70	130				
Arsenic	0.0468	0.0050	0.05		94	70	130				
Barium	0.0469	0.10	0.05	0.0001007	94	70	130				
Beryllium	0.0459	0.0010	0.05		92	70	130				
Cadmium	0.0462	0.0010	0.05		93	70	130				
Calcium	46.8	1.0	50		94	70	130				
Chromium	0.0476	0.010	0.05		95	70	130				
Cobalt	0.0472	0.010	0.05		95	70	130				
Copper	0.0467	0.010	0.05		93	70	130				
Iron	4.62	0.030	5		92	70	130				
Lead	0.0482	0.010	0.05		96	70	130				
Magnesium	45.3	1.0	50	0.005279	91	70	130				
Manganese	0.0473	0.010	0.05		95	70	130				
Mercury	0.000950	0.0010	0.001		95	70	130				
Nickel	0.0466	0.010	0.05		93	70	130				
Potassium	45.8	1.0	50		92	70	130				
Selenium	0.0462	0.0050	0.05		92	70	130				
Silver	0.0178	0.0050	0.02		89	70	130				
Sodium	45.2	1.0	50		90	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 92 SampType: Sample Matrix Spike Sample ID: H11050015-004CMS Method: E200.8

Analysis Date: 05/04/11 20:05 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0475	0.0050	0.05		95	70	130				
Vanadium	0.0471	0.10	0.05		94	70	130				
Zinc	0.0481	0.010	0.05	0.002381	91	70	130				

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 93 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-004CMSD Method: E200.8

Analysis Date: 05/04/11 20:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0458	0.10	0.05		92	70	130	0.04648		20	
Antimony	0.0463	0.0050	0.05		93	70	130	0.04681	1.2	20	
Arsenic	0.0458	0.0050	0.05		92	70	130	0.04679	2.2	20	
Barium	0.0461	0.10	0.05	0.0001007	92	70	130	0.04692		20	
Beryllium	0.0448	0.0010	0.05		90	70	130	0.04594	2.6	20	
Cadmium	0.0456	0.0010	0.05		91	70	130	0.04625	1.3	20	
Calcium	45.4	1.0	50		91	70	130	46.75	3.0	20	
Chromium	0.0465	0.010	0.05		93	70	130	0.04758	2.4	20	
Cobalt	0.0468	0.010	0.05		94	70	130	0.04725	0.9	20	
Copper	0.0456	0.010	0.05		91	70	130	0.04667	2.3	20	
Iron	4.55	0.030	5		91	70	130	4.615	1.5	20	
Lead	0.0481	0.010	0.05		96	70	130	0.04816	0.1	20	
Magnesium	44.0	1.0	50	0.005279	88	70	130	45.26	2.8	20	
Manganese	0.0468	0.010	0.05		94	70	130	0.0473	1.1	20	
Mercury	0.000950	0.0010	0.001		95	70	130	0.00095		20	
Nickel	0.0450	0.010	0.05		90	70	130	0.0466	3.4	20	
Potassium	44.9	1.0	50		90	70	130	45.75	1.9	20	
Selenium	0.0461	0.0050	0.05		92	70	130	0.04617	0.1	20	
Silver	0.0178	0.0050	0.02		89	70	130	0.01781	0.2	20	
Sodium	44.2	1.0	50		88	70	130	45.22	2.3	20	
Thallium	0.0481	0.0050	0.05		96	70	130	0.04752	1.2	20	
Vanadium	0.0459	0.10	0.05		92	70	130	0.04709		20	
Zinc	0.0468	0.010	0.05	0.002381	89	70	130	0.04807	2.7	20	

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT
Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 118 SampType: Sample Matrix Spike Sample ID: H11050018-004BMS Method: E200.8

Analysis Date: 05/04/11 22:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0654	0.10	0.05	0.01932	92	70	130				
Antimony	0.0491	0.0050	0.05	0.0000823	98	70	130				
Arsenic	0.0502	0.0050	0.05	0.0000895	100	70	130				
Barium	0.171	0.10	0.05	0.1276	87	70	130				
Beryllium	0.0472	0.0010	0.05	0.0000237	94	70	130				
Cadmium	0.0618	0.0010	0.05	0.01472	94	70	130				
Calcium	78.3	1.0	50	31.68	93	70	130				
Chromium	0.0501	0.010	0.05		100	70	130				
Cobalt	0.0544	0.010	0.05	0.007329	94	70	130				
Copper	0.0666	0.010	0.05	0.01842	96	70	130				
Iron	5.62	0.030	5	0.6163	100	70	130				
Lead	0.0498	0.010	0.05	0.0003037	99	70	130				
Magnesium	67.8	1.0	50	19.19	97	70	130				
Manganese	2.71	0.010	0.05	2.778		70	130				A
Mercury	0.000970	0.0010	0.001		97	70	130				
Nickel	0.0631	0.010	0.05	0.01513	96	70	130				
Potassium	49.0	1.0	50	0.5766	97	70	130				
Selenium	0.0515	0.0050	0.05	0.0000435	103	70	130				
Silver	0.0185	0.0050	0.02		92	70	130				
Sodium	50.4	1.0	50	1.271	98	70	130				
Thallium	0.0487	0.0050	0.05		97	70	130				
Vanadium	0.0495	0.10	0.05	0.000014	99	70	130				
Zinc	3.20	0.010	0.05	3.237		70	130				A

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Run ID :Run Order: ICPMS204-B_110504A: 119 SampType: Sample Matrix Spike Duplicate Sample ID: H11050018-004BMSD Method: E200.8

Analysis Date: 05/04/11 22:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0658	0.10	0.05	0.01932	93	70	130	0.06538		20	
Antimony	0.0482	0.0050	0.05	0.0000823	96	70	130	0.04914	1.9	20	
Arsenic	0.0484	0.0050	0.05	0.0000895	97	70	130	0.05016	3.6	20	
Barium	0.168	0.10	0.05	0.1276	80	70	130	0.1711	2.0	20	
Beryllium	0.0472	0.0010	0.05	0.0000237	94	70	130	0.04719	0.0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 119 SampType: Sample Matrix Spike Duplicate Sample ID: H11050018-004BMSD Method: E200.8

Analysis Date: 05/04/11 22:04

Units: mg/L

Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0609	0.0010	0.05	0.01472	92	70	130	0.06175	1.5	20	
Calcium	75.5	1.0	50	31.68	88	70	130	78.27	3.6	20	
Chromium	0.0482	0.010	0.05		96	70	130	0.05008	3.8	20	
Cobalt	0.0543	0.010	0.05	0.007329	94	70	130	0.05436	0.1	20	
Copper	0.0646	0.010	0.05	0.01842	92	70	130	0.06659	3.0	20	
Iron	5.38	0.030	5	0.6163	95	70	130	5.622	4.4	20	
Lead	0.0486	0.010	0.05	0.0003037	97	70	130	0.04976	2.4	20	
Magnesium	66.0	1.0	50	19.19	94	70	130	67.82	2.6	20	
Manganese	2.73	0.010	0.05	2.778		70	130	2.709	0.7	20	A
Mercury	0.000980	0.0010	0.001		98	70	130	0.00097		20	
Nickel	0.0607	0.010	0.05	0.01513	91	70	130	0.06312	3.9	20	
Potassium	46.9	1.0	50	0.5766	93	70	130	49.01	4.4	20	
Selenium	0.0490	0.0050	0.05	0.0000435	98	70	130	0.05155	5.0	20	
Silver	0.0183	0.0050	0.02		91	70	130	0.01846	0.9	20	
Sodium	48.9	1.0	50	1.271	95	70	130	50.42	3.1	20	
Thallium	0.0482	0.0050	0.05		96	70	130	0.04869	1.0	20	
Vanadium	0.0477	0.10	0.05	0.000014	95	70	130	0.04947		20	
Zinc	3.08	0.010	0.05	3.237		70	130	3.2	3.7	20	A

Associated samples: H11050015-001B; H11050015-002B; H11050015-003B; H11050015-004B; H11050015-004C; H11050015-005B; H11050015-006B; H11050015-007B;
H11050015-008B; H11050015-008C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 31-May-11

Project: Section 35 Groundwater Baseline

BatchID: R70779

Run ID :Run Order: ICPMS204-B_110505A: 7	SampType: Initial Calibration Verification Standard	Sample ID: ICV STD	Method: E200.8
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Analysis Date: 05/05/11 13:29	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00200	0.0010	0.002		100	90	110				
Zinc	0.0495	0.010	0.05		99	90	110				

Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 8	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 05/05/11 13:33	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.50E-05	0.0010									
Zinc	0.00104	0.010									

Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 9	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 05/05/11 13:38	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.60E-05	0.0010				0	0				
Zinc	0.0105	0.010	0.01		105	70	130				

Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 19	SampType: Method Blank	Sample ID: ICB	Method: E200.8
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Analysis Date: 05/05/11 14:32	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	9E-06									
Zinc	0.0009	0.0003									

Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 20	SampType: Laboratory Fortified Blank	Sample ID: LFB	Method: E200.8
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Analysis Date: 05/05/11 14:36	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000985	0.0010	0.001		99	85	115				
Zinc	0.0480	0.010	0.05	0.0009163	94	85	115				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050015

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: Section 35 Groundwater Baseline

BatchID: R70779

Date: 31-May-11

Run ID :Run Order: ICPMS204-B_110505A: 20	SampType: Laboratory Fortified Blank	Sample ID: LFB	Method: E200.8
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Analysis Date: 05/05/11 14:36	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 42	SampType: Sample Matrix Spike	Sample ID: H11050015-001BMS	Method: E200.8
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Analysis Date: 05/05/11 16:12	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00114	0.0010	0.001	0.0000093	113	70	130				
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Zinc	0.0616	0.010	0.05	0.01513	93	70	130				
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Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 43	SampType: Sample Matrix Spike Duplicate	Sample ID: H11050015-001BMSD	Method: E200.8
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Analysis Date: 05/05/11 16:16	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00112	0.0010	0.001	0.0000093	111	70	130	0.00114	2.1	20	
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Zinc	0.0605	0.010	0.05	0.01513	91	70	130	0.06162	1.8	20	
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Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 49	SampType: Sample Matrix Spike	Sample ID: H11050015-004CMS	Method: E200.8
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Analysis Date: 05/05/11 16:42	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00101	0.0010	0.001		101	70	130				
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Zinc	0.0487	0.010	0.05	0.001118	95	70	130				
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Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Run ID :Run Order: ICPMS204-B_110505A: 54	SampType: Sample Matrix Spike Duplicate	Sample ID: H11050015-004CMSD	Method: E200.8
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Analysis Date: 05/05/11 17:04	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.000962	0.0010	0.001		96	70	130	0.00101		20	
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Zinc	0.0483	0.010	0.05	0.001118	94	70	130	0.04866	0.7	20	
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Associated samples: **H11050015-001B; H11050015-002B; H11050015-004C; H11050015-007B; H11050015-008C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11050015

Login completed by: Tracy L. Lorash

Date Received: 5/2/2011

Reviewed by: BL2000\kwiegand

Received by: jdh

Reviewed Date: 5/5/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.6°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)																																																																							
Company Name: MDEQ	Project Name, PWS, Permit, Etc. Secton 35 Groundwater	Sample Origin State: MI	EPA/State Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																																																				
Report Mail Address: Quofe: H-645	Contact Name: Shawn Heiland	Email: shawn@enervolab.com	Sampler: (Please Print) Aaron Dressback																																																																				
Invoice Address:	Phone/Fax: 517-414-5033	Purchase Order:	Quote/Bottle Order: My Benefits																																																																				
Special Report/Formats:	<input type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: _____ <input type="checkbox"/> Other: _____																																																																						
<p><input type="checkbox"/> EDD/EDT (Electronic Data) Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC</p> <p>Number of Contaminants: 1 Sample Type: A WS VS B O DW Air Water Solids/Solids Vegetation/Biosassay/Other DW - Drinking Water</p> <p>Matrix</p> <table border="1"> <thead> <tr> <th>SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)</th> <th>Collection Date</th> <th>Collection Time</th> <th>Matrix</th> </tr> </thead> <tbody> <tr> <td>1 S 35 MW 02</td> <td>4/30/11</td> <td>1830</td> <td>Water</td> </tr> <tr> <td>2 S 35 MW 05</td> <td>5/1/11</td> <td>1020</td> <td>Groundwater</td> </tr> <tr> <td>3 S 35 MW 03</td> <td>5/1/11</td> <td>1200</td> <td>Groundwater</td> </tr> <tr> <td>4 S 35 MW 08</td> <td>5/1/11</td> <td>1245</td> <td>Groundwater</td> </tr> <tr> <td>5 S 35 MW 07</td> <td>5/1/11</td> <td>1345</td> <td>Groundwater</td> </tr> <tr> <td>6 S 35 MW 04</td> <td>5/1/11</td> <td>1400</td> <td>Groundwater</td> </tr> <tr> <td>7 S 35 MW 06</td> <td>5/1/11</td> <td>1545</td> <td>Groundwater</td> </tr> <tr> <td>8 S 35 MW 09</td> <td>5/1/11</td> <td>1600</td> <td>Groundwater</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>5/1/11 AM</p>						SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Matrix	1 S 35 MW 02	4/30/11	1830	Water	2 S 35 MW 05	5/1/11	1020	Groundwater	3 S 35 MW 03	5/1/11	1200	Groundwater	4 S 35 MW 08	5/1/11	1245	Groundwater	5 S 35 MW 07	5/1/11	1345	Groundwater	6 S 35 MW 04	5/1/11	1400	Groundwater	7 S 35 MW 06	5/1/11	1545	Groundwater	8 S 35 MW 09	5/1/11	1600	Groundwater	9				10																									
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	Matrix																																																																				
1 S 35 MW 02	4/30/11	1830	Water																																																																				
2 S 35 MW 05	5/1/11	1020	Groundwater																																																																				
3 S 35 MW 03	5/1/11	1200	Groundwater																																																																				
4 S 35 MW 08	5/1/11	1245	Groundwater																																																																				
5 S 35 MW 07	5/1/11	1345	Groundwater																																																																				
6 S 35 MW 04	5/1/11	1400	Groundwater																																																																				
7 S 35 MW 06	5/1/11	1545	Groundwater																																																																				
8 S 35 MW 09	5/1/11	1600	Groundwater																																																																				
9																																																																							
10																																																																							
Custody Record Retained by (print): Aaron Dressback	Date/Time: 5/2/11 @ 1545	Signature:	Received by (print): None	Date/Time:																																																																			
Sample Disposal: Return to Client: None	Date/Time: 5/2/11 @ 1545	Signature:	Received by (print): None	Date/Time:																																																																			
Custody Record Retained by (print): None	Date/Time: 5/2/11 @ 1545	Signature:	Received by Laboratory: None	Date/Time:																																																																			
LABORATORY USE ONLY <table border="1"> <thead> <tr> <th>Comments: Plates copy run 1st. addressed to partage inc - way</th> <th>R</th> <th>U</th> <th>S</th> <th>H</th> <th></th> </tr> </thead> <tbody> <tr> <td>Standard Turnaround (TAT)</td> <td>↑</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SEE ATTACHED</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Comments: Plates copy run 1st. addressed to partage inc - way</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Shipped by None</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Comments: Plates copy run 1st. addressed to partage inc - way</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Receipt Temp 5.6 °C</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>On Ice: 0 N</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Custody Seal On Bottle On Cooler Intact Signature Match</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>H1050015</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Comments: Plates copy run 1st. addressed to partage inc - way	R	U	S	H		Standard Turnaround (TAT)	↑					SEE ATTACHED						Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page						Comments: Plates copy run 1st. addressed to partage inc - way						Shipped by None						Comments: Plates copy run 1st. addressed to partage inc - way						Receipt Temp 5.6 °C						On Ice: 0 N						Custody Seal On Bottle On Cooler Intact Signature Match						H1050015					
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In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report. Visit our web site at www.enervolab.com for additional information, downloadable fee schedule, forms, and links.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<u>UBMC Ground Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	>0.05	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
Metals by ICP/ICPMS, Tot. Rec.	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 105 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

May 12, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11050028 Quote ID: H645 - UBMC

Project Name: UBMC Surface Water Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 5 samples for MT DEQ-Site Response on 5/2/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11050028-001	S35 SW06	04/29/11 8:52	05/02/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11050028-002	S35 SW01	04/29/11 8:55	05/02/11	Surface Water	Same As Above
H11050028-003	S35 SW02	04/29/11 10:15	05/02/11	Surface Water	Same As Above
H11050028-004	S35 SW04	04/29/11 11:52	05/02/11	Surface Water	Same As Above
H11050028-005	S35 SW03	04/29/11 12:50	05/02/11	Surface Water	Same As Above

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW06

Lab ID: H11050028-001

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/29/11 08:52

Date Received: 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.		0.1		A4500-H B	05/03/11 18:40 / zeg		MAN-TECH_110503A : 53		R70695
Conductivity	93	umhos/cm		1		A2510 B	05/03/11 11:42 / cmm		COND_110503A : 2510503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:43 / cmm	05/03/11 13:16-124 (14410200)_110503A : 27			12064
Solids, Total Dissolved TDS @ 180 C	42	mg/L		10		A2540 C	05/03/11 14:03 / cmm	05/03/11 13:17-124 (14410200)_110503B : 23			12065
INORGANICS											
Alkalinity, Total as CaCO3	49	mg/L		4		A2320 B	05/03/11 18:40 / zeg		MAN-TECH_110503A : 52		R70695
Bicarbonate as HCO3	59	mg/L		4		A2320 B	05/03/11 18:40 / zeg		MAN-TECH_110503A : 52		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 18:40 / zeg		MAN-TECH_110503A : 52		R70695
Chloride	ND	mg/L		1		E300.0	05/04/11 00:50 / zeg		IC101-H_110503B : 39		R70698
Sulfate	3	mg/L		1		E300.0	05/04/11 00:50 / zeg		IC101-H_110503B : 39		R70698
Hardness as CaCO3	48	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 13		R70750
METALS, DISSOLVED											
Aluminum	0.18	mg/L		0.03		E200.8	05/04/11 23:10 / dck		ICPMS204-B_110504A : 134		R70718
Calcium	11	mg/L		1		E200.8	05/04/11 23:10 / dck		ICPMS204-B_110504A : 134		R70718
Magnesium	5	mg/L		1		E200.8	05/04/11 23:10 / dck		ICPMS204-B_110504A : 134		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 23:10 / dck		ICPMS204-B_110504A : 134		R70718
Sodium	2	mg/L		1		E200.8	05/04/11 23:10 / dck		ICPMS204-B_110504A : 134		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.25	mg/L		0.03		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Antimony	ND	mg/L		0.003		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Barium	0.082	mg/L		0.005		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Calcium	11	mg/L		1		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Chromium	ND	mg/L		0.001		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Copper	0.003	mg/L		0.001		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Iron	0.19	mg/L		0.03		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW06

Lab ID: H11050028-001

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 08:52 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Magnesium	5	mg/L		1		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Manganese	0.007	mg/L		0.005		E200.8	05/09/11 16:26 / dck	05/03/11 11:35	ICPMS204-B_110509A : 30		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:03 / stp	05/10/11 12:02	HGCV201-H_110510A : 19		12157
Nickel	ND	mg/L		0.01		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Potassium	ND	mg/L		1		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Selenium	ND	mg/L		0.001		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Silver	ND	mg/L		0.0005		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Sodium	2	mg/L		1		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052
Zinc	ND	mg/L		0.01		E200.8	05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135		12052

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW01

Lab ID: H11050028-002

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/29/11 08:55 **Date Received:** 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.		0.1		A4500-H B	05/03/11 18:47 / zeg		MAN-TECH_110503A : 55		R70695
Conductivity	94	umhos/cm		1		A2510 B	05/03/11 11:43 / cmm		COND_110503A : 2610503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:43 / cmm	05/03/11 13:16-124 (14410200)_110503A : 29			12064
Solids, Total Dissolved TDS @ 180 C	57	mg/L		10		A2540 C	05/03/11 14:03 / cmm	05/03/11 13:17-124 (14410200)_110503B : 24			12065
INORGANICS											
Alkalinity, Total as CaCO3	49	mg/L		4		A2320 B	05/03/11 18:47 / zeg		MAN-TECH_110503A : 54		R70695
Bicarbonate as HCO3	59	mg/L		4		A2320 B	05/03/11 18:47 / zeg		MAN-TECH_110503A : 54		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 18:47 / zeg		MAN-TECH_110503A : 54		R70695
Chloride	ND	mg/L		1		E300.0	05/04/11 01:36 / zeg		IC101-H_110503B : 42		R70698
Sulfate	3	mg/L		1		E300.0	05/04/11 01:36 / zeg		IC101-H_110503B : 42		R70698
Hardness as CaCO3	50	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 14		R70750
METALS, DISSOLVED											
Aluminum	0.19	mg/L		0.03		E200.8	05/04/11 23:19 / dck		ICPMS204-B_110504A : 136		R70718
Calcium	12	mg/L		1		E200.8	05/04/11 23:19 / dck		ICPMS204-B_110504A : 136		R70718
Magnesium	5	mg/L		1		E200.8	05/04/11 23:19 / dck		ICPMS204-B_110504A : 136		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 23:19 / dck		ICPMS204-B_110504A : 136		R70718
Sodium	2	mg/L		1		E200.8	05/04/11 23:19 / dck		ICPMS204-B_110504A : 136		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.26	mg/L		0.03		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Antimony	ND	mg/L		0.003		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Barium	0.082	mg/L		0.005		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Calcium	11	mg/L		1		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Chromium	ND	mg/L		0.001		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Copper	0.003	mg/L		0.001		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Iron	0.20	mg/L		0.03		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW01

Lab ID: H11050028-002

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 08:55 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Magnesium	5	mg/L		1		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Manganese	0.007	mg/L		0.005		E200.8	05/09/11 16:31 / dck	05/03/11 11:35	ICPMS204-B_110509A : 31		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:05 / stp	05/10/11 12:02	HGCV201-H_110510A : 20		12157
Nickel	ND	mg/L		0.01		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Potassium	ND	mg/L		1		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Selenium	ND	mg/L		0.001		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Silver	ND	mg/L		0.0005		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Sodium	2	mg/L		1		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052
Zinc	ND	mg/L		0.01		E200.8	05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137		12052

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW02

Lab ID: H11050028-003

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/29/11 10:15 **Date Received:** 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	05/03/11 19:10 / zeg		MAN-TECH_110503A : 62		R70695
Conductivity	100	umhos/cm		1		A2510 B	05/03/11 11:44 / cmm		COND_110503A : 2710503A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:44 / cmm	05/03/11 13:16-124 (14410200)_110503A : 30			12064
Solids, Total Dissolved TDS @ 180 C	70	mg/L		10		A2540 C	05/03/11 14:03 / cmm	05/03/11 13:17-124 (14410200)_110503B : 25			12065
INORGANICS											
Alkalinity, Total as CaCO3	51	mg/L		4		A2320 B	05/03/11 19:10 / zeg		MAN-TECH_110503A : 61		R70695
Bicarbonate as HCO3	63	mg/L		4		A2320 B	05/03/11 19:10 / zeg		MAN-TECH_110503A : 61		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 19:10 / zeg		MAN-TECH_110503A : 61		R70695
Chloride	ND	mg/L		1		E300.0	05/04/11 01:52 / zeg		IC101-H_110503B : 43		R70698
Sulfate	3	mg/L		1		E300.0	05/04/11 01:52 / zeg		IC101-H_110503B : 43		R70698
Hardness as CaCO3	50	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 15		R70750
METALS, DISSOLVED											
Aluminum	0.14	mg/L		0.03		E200.8	05/04/11 23:46 / dck		ICPMS204-B_110504A : 142		R70718
Calcium	11	mg/L		1		E200.8	05/04/11 23:46 / dck		ICPMS204-B_110504A : 142		R70718
Magnesium	5	mg/L		1		E200.8	05/04/11 23:46 / dck		ICPMS204-B_110504A : 142		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 23:46 / dck		ICPMS204-B_110504A : 142		R70718
Sodium	2	mg/L		1		E200.8	05/04/11 23:46 / dck		ICPMS204-B_110504A : 142		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.32	mg/L		0.03		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Antimony	ND	mg/L		0.003		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Barium	0.082	mg/L		0.005		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Cadmium	ND	mg/L		0.00008		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Calcium	12	mg/L		1		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Chromium	ND	mg/L		0.001		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Copper	0.004	mg/L		0.001		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Iron	0.25	mg/L		0.03		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW02

Lab ID: H11050028-003

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 10:15 **DateReceived:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Magnesium	5	mg/L		1		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Manganese	0.006	mg/L		0.005		E200.8	05/09/11 16:35 / dck	05/03/11 11:35	ICPMS204-B_110509A : 32		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:08 / stp	05/10/11 12:02	HGCV201-H_110510A : 21		12157
Nickel	ND	mg/L		0.01		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Potassium	ND	mg/L		1		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Selenium	ND	mg/L		0.001		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Silver	ND	mg/L		0.0005		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Sodium	2	mg/L		1		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052
Zinc	ND	mg/L		0.01		E200.8	05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143		12052

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW04

Lab ID: H11050028-004

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/29/11 11:52

Date Received: 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	05/03/11 19:25 / zeg		MAN-TECH_110503A : 66		R70695
Conductivity	181	umhos/cm		1		A2510 B	05/03/11 11:45 / cmm		COND_110503A : 2810503A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:44 / cmm	05/03/11 13:16-124 (14410200)_110503A : 31			12064
Solids, Total Dissolved TDS @ 180 C	114	mg/L		10		A2540 C	05/03/11 14:04 / cmm	05/03/11 13:23-124 (14410200)_110503B : 28			12066
INORGANICS											
Alkalinity, Total as CaCO3	56	mg/L		4		A2320 B	05/03/11 19:25 / zeg		MAN-TECH_110503A : 65		R70695
Bicarbonate as HCO3	68	mg/L		4		A2320 B	05/03/11 19:25 / zeg		MAN-TECH_110503A : 65		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 19:25 / zeg		MAN-TECH_110503A : 65		R70695
Chloride	4	mg/L		1		E300.0	05/04/11 02:07 / zeg		IC101-H_110503B : 44		R70698
Sulfate	27	mg/L		1		E300.0	05/04/11 02:07 / zeg		IC101-H_110503B : 44		R70698
Hardness as CaCO3	88	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 16		R70750
METALS, DISSOLVED											
Aluminum	0.10	mg/L		0.03		E200.8	05/04/11 23:55 / dck		ICPMS204-B_110504A : 144		R70718
Calcium	19	mg/L		1		E200.8	05/04/11 23:55 / dck		ICPMS204-B_110504A : 144		R70718
Magnesium	10	mg/L		1		E200.8	05/04/11 23:55 / dck		ICPMS204-B_110504A : 144		R70718
Potassium	ND	mg/L		1		E200.8	05/04/11 23:55 / dck		ICPMS204-B_110504A : 144		R70718
Sodium	3	mg/L		1		E200.8	05/04/11 23:55 / dck		ICPMS204-B_110504A : 144		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.17	mg/L		0.03		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Antimony	ND	mg/L		0.003		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Arsenic	ND	mg/L		0.003		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Barium	0.121	mg/L		0.005		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Beryllium	ND	mg/L		0.001		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Cadmium	0.00029	mg/L		0.00008		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Calcium	19	mg/L		1		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Chromium	ND	mg/L		0.001		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Cobalt	ND	mg/L		0.01		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Copper	0.003	mg/L		0.001		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Iron	0.27	mg/L		0.03		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW04

Lab ID: H11050028-004

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 11:52 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	0.0006	mg/L		0.0005		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Magnesium	10	mg/L		1		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Manganese	0.055	mg/L		0.005		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:15 / stp	05/10/11 12:02	HGCV201-H_110510A : 24		12157
Nickel	ND	mg/L		0.01		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Potassium	ND	mg/L		1		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Selenium	ND	mg/L		0.001		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Silver	ND	mg/L		0.0005		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Sodium	3	mg/L		1		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Thallium	ND	mg/L		0.0002		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Vanadium	ND	mg/L		0.1		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Zinc	0.17	mg/L		0.01		E200.8	05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW03

Lab ID: H11050028-005

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/29/11 12:50

Date Received: 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	05/03/11 19:31 / zeg		MAN-TECH_110503A : 68		R70695
Conductivity	182	umhos/cm		1		A2510 B	05/03/11 11:45 / cmm		COND_110503A : 3010503A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:44 / cmm	05/03/11 13:16-124 (14410200)_110503A : 32			12064
Solids, Total Dissolved TDS @ 180 C	126	mg/L		10		A2540 C	05/03/11 14:05 / cmm	05/03/11 13:23-124 (14410200)_110503B : 30			12066
INORGANICS											
Alkalinity, Total as CaCO3	56	mg/L		4		A2320 B	05/03/11 19:31 / zeg		MAN-TECH_110503A : 67		R70695
Bicarbonate as HCO3	69	mg/L		4		A2320 B	05/03/11 19:31 / zeg		MAN-TECH_110503A : 67		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 19:31 / zeg		MAN-TECH_110503A : 67		R70695
Chloride	4	mg/L		1		E300.0	05/04/11 02:23 / zeg		IC101-H_110503B : 45		R70698
Sulfate	27	mg/L		1		E300.0	05/04/11 02:23 / zeg		IC101-H_110503B : 45		R70698
Hardness as CaCO3	87	mg/L		1		A2340 B	05/05/11 13:10 / sld		WATERCALC_110505A : 17		R70750
METALS, DISSOLVED											
Aluminum	0.10	mg/L		0.03		E200.8	05/05/11 00:04 / dck		ICPMS204-B_110504A : 146		R70718
Calcium	19	mg/L		1		E200.8	05/05/11 00:04 / dck		ICPMS204-B_110504A : 146		R70718
Magnesium	10	mg/L		1		E200.8	05/05/11 00:04 / dck		ICPMS204-B_110504A : 146		R70718
Potassium	ND	mg/L		1		E200.8	05/05/11 00:04 / dck		ICPMS204-B_110504A : 146		R70718
Sodium	3	mg/L		1		E200.8	05/05/11 00:04 / dck		ICPMS204-B_110504A : 146		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.20	mg/L		0.03		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Antimony	ND	mg/L		0.003		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Arsenic	ND	mg/L		0.003		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Barium	0.125	mg/L		0.005		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Beryllium	ND	mg/L		0.001		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Cadmium	0.00034	mg/L		0.00008		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Calcium	19	mg/L		1		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Chromium	ND	mg/L		0.001		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Cobalt	ND	mg/L		0.01		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Copper	0.003	mg/L		0.001		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Iron	0.31	mg/L		0.03		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW03

Lab ID: H11050028-005

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 12:50 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	0.0006	mg/L		0.0005		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Magnesium	10	mg/L		1		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Manganese	0.068	mg/L		0.005		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:17 / stp	05/10/11 12:02	HGCV201-H_110510A : 25		12157
Nickel	ND	mg/L		0.01		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Potassium	ND	mg/L		1		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Selenium	ND	mg/L		0.001		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Silver	ND	mg/L		0.0005		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Sodium	3	mg/L		1		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Thallium	ND	mg/L		0.0002		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Vanadium	ND	mg/L		0.1		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052
Zinc	0.18	mg/L		0.01		E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147		12052

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 110503A-COND-PROBE

Run ID :Run Order: COND_110503A: 6		SampType: Initial Calibration Verification Standard				Sample ID: ICV1_110503A				Method: A2510 B		
Analysis Date:	05/03/11 11:03	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		978	1.0	1000		98	90	110				

Associated samples: H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A

Run ID :Run Order: COND_110503A: 19		SampType: Sample Duplicate				Sample ID: H11050018-003ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:33	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		9.64	1.0				9.6			0.5	10	

Associated samples: H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A

Run ID :Run Order: COND_110503A: 29		SampType: Continuing Calibration Verification Standard				Sample ID: CCV6_110503A				Method: A2510 B		
Analysis Date:	05/03/11 14:35	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		1380	1.0	1412		98	90	110				

Associated samples: H11050028-005A

Run ID :Run Order: COND_110503A: 31		SampType: Sample Duplicate				Sample ID: H11050028-005ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:46	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		182	1.0				181.7			0.4	10	

Associated samples: H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 12 of 38

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 110510wa

Run ID :Run Order: HGCV201-H_110510A: 6 SampType: Initial Calibration Verification Standard Sample ID: ICV Method: E245.1

Analysis Date: 05/10/11 15:32 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00019	0.00010	0.0002		95	90	110				
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Associated samples: H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C

Run ID :Run Order: HGCV201-H_110510A: 7 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E245.1

Analysis Date: 05/10/11 15:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00020	0.00010	0.0002		102	95	105				
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Associated samples: H11050028-001C; H11050028-002C; H11050028-003C

Run ID :Run Order: HGCV201-H_110510A: 22 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E245.1

Analysis Date: 05/10/11 16:10 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00020	0.00010	0.0002		100	90	110				
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Associated samples: H11050028-004C; H11050028-005C

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 69	SampType: Method Blank	Sample ID: MB-12052				Method: E200.8			
Analysis Date: 05/04/11 18:23	Units: mg/L	Prep Info: Prep Date: 5/3/2011				Prep Method: E200.2			
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPD Limit Qual
Aluminum	0.002	0.0007							
Antimony	ND	4E-05							
Arsenic	0.0002	5E-05							
Barium	0.0002	9E-05							
Beryllium	ND	2E-05							
Cadmium	ND	2E-05							
Calcium	ND	0.04							
Chromium	ND	6E-05							
Cobalt	ND	3E-05							
Copper	ND	0.0004							
Iron	ND	0.0006							
Lead	ND	2E-05							
Magnesium	0.004	0.003							
Manganese	ND	6E-05							
Nickel	ND	0.0002							
Potassium	ND	0.07							
Selenium	ND	0.0002							
Silver	ND	6E-05							
Sodium	0.1	0.04							
Thallium	ND	2E-05							
Vanadium	0.0001	5E-05							
Zinc	0.0009	0.0003							

Associated samples: H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 70	SampType: Laboratory Control Sample	Sample ID: LCS-12052				Method: E200.8			
Analysis Date: 05/04/11 18:28	Units: mg/L	Prep Info: Prep Date: 5/3/2011				Prep Method: E200.2			
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPD Limit Qual
Aluminum	2.47	0.10	2.5	0.001809	99	85	115		
Antimony	0.533	0.0050	0.5		107	85	115		
Arsenic	0.528	0.0050	0.5	0.0001528	106	85	115		
Barium	0.512	0.10	0.5	0.0002495	102	85	115		
Beryllium	0.265	0.0010	0.25		106	85	115		
Cadmium	0.264	0.0010	0.25		106	85	115		

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 70 SampType: Laboratory Control Sample Sample ID: LCS-12052 Method: E200.8

Analysis Date: 05/04/11 18:28 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	27.9	1.0	25		112	85	115				
Chromium	0.525	0.010	0.5		105	85	115				
Cobalt	0.509	0.010	0.5		102	85	115				
Copper	0.530	0.010	0.5		106	85	115				
Iron	2.71	0.030	2.5		108	85	115				
Lead	0.525	0.010	0.5		105	85	115				
Magnesium	26.2	1.0	25	0.004364	105	85	115				
Manganese	2.48	0.010	2.5		99	85	115				
Nickel	0.528	0.010	0.5		106	85	115				
Potassium	26.2	1.0	25		105	85	115				
Selenium	0.530	0.0050	0.5		106	85	115				
Silver	0.0499	0.0050	0.05		100	85	115				
Sodium	26.5	1.0	25	0.1355	105	85	115				
Thallium	0.528	0.0050	0.5		106	85	115				
Vanadium	0.532	0.10	0.5	0.0001296	106	85	115				
Zinc	0.534	0.010	0.5	0.0009246	107	85	115				

Associated samples: H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 78 SampType: Sample Matrix Spike Sample ID: H11050015-001CMS3 Method: E200.8

Analysis Date: 05/04/11 19:03 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3.32	0.10	2.5	0.5105	112	70	130				
Antimony	0.508	0.0050	0.5	0.0004997	102	70	130				
Arsenic	0.507	0.0050	0.5	0.001216	101	70	130				
Barium	1.25	0.10	0.5	0.7832	94	70	130				
Beryllium	0.242	0.0010	0.25	0.0000304	97	70	130				
Cadmium	0.253	0.0010	0.25	0.0001095	101	70	130				
Calcium	94.3	1.0	25	68.77	102	70	130				
Chromium	0.504	0.010	0.5	0.001351	100	70	130				
Cobalt	0.497	0.010	0.5	0.0005267	99	70	130				
Copper	0.511	0.010	0.5	0.007801	101	70	130				
Iron	3.64	0.030	2.5	0.9188	109	70	130				
Lead	0.509	0.010	0.5	0.001487	101	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 78		SampType: Sample Matrix Spike			Sample ID: H11050015-001CMS3				Method: E200.8			
Analysis Date: 05/04/11 19:03		Units: mg/L			Prep Info:		Prep Date: 5/3/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium		39.4	1.0	25	15.26	96	70	130				
Manganese		2.48	0.010	2.5	0.0276	98	70	130				
Nickel		0.501	0.010	0.5	0.001447	100	70	130				
Potassium		27.2	1.0	25	1.933	101	70	130				
Selenium		0.504	0.0050	0.5	0.0001836	101	70	130				
Silver		0.0483	0.0050	0.05	0.0004189	96	70	130				
Sodium		29.4	1.0	25	4.459	100	70	130				
Thallium		0.507	0.0050	0.5	0.000022	101	70	130				
Vanadium		0.510	0.10	0.5	0.0006825	102	70	130				
Zinc		0.518	0.010	0.5	0.02105	99	70	130				

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Run ID :Run Order: ICPMS204-B_110504A: 79		SampType: Sample Matrix Spike Duplicate			Sample ID: H11050015-001CMSD3				Method: E200.8			
Analysis Date: 05/04/11 19:07		Units: mg/L			Prep Info:		Prep Date: 5/3/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		3.30	0.10	2.5	0.5105	112	70	130	3.321	0.6	20	
Antimony		0.514	0.0050	0.5	0.0004997	103	70	130	0.508	1.2	20	
Arsenic		0.507	0.0050	0.5	0.001216	101	70	130	0.507	0.0	20	
Barium		1.26	0.10	0.5	0.7832	95	70	130	1.252	0.3	20	
Beryllium		0.246	0.0010	0.25	0.0000304	98	70	130	0.2418	1.6	20	
Cadmium		0.255	0.0010	0.25	0.0001095	102	70	130	0.2527	0.9	20	
Calcium		94.4	1.0	25	68.77	102	70	130	94.26	0.1	20	
Chromium		0.512	0.010	0.5	0.001351	102	70	130	0.5036	1.6	20	
Cobalt		0.497	0.010	0.5	0.0005267	99	70	130	0.4967	0.0	20	
Copper		0.511	0.010	0.5	0.007801	101	70	130	0.5106	0.0	20	
Iron		3.44	0.030	2.5	0.9188	101	70	130	3.645	5.7	20	
Lead		0.512	0.010	0.5	0.001487	102	70	130	0.5087	0.7	20	
Magnesium		39.8	1.0	25	15.26	98	70	130	39.38	1.1	20	
Manganese		2.48	0.010	2.5	0.0276	98	70	130	2.478	0.2	20	
Nickel		0.506	0.010	0.5	0.001447	101	70	130	0.5013	1.0	20	
Potassium		27.4	1.0	25	1.933	102	70	130	27.2	0.6	20	
Selenium		0.480	0.0050	0.5	0.0001836	96	70	130	0.5037	4.8	20	
Silver		0.0488	0.0050	0.05	0.0004189	97	70	130	0.04826	1.2	20	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 79 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-001CMSD3 Method: E200.8

Analysis Date: 05/04/11 19:07 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	30.0	1.0	25	4.459	102	70	130	29.4	2.1	20	
Thallium	0.509	0.0050	0.5	0.000022	102	70	130	0.5066	0.4	20	
Vanadium	0.515	0.10	0.5	0.0006825	103	70	130	0.51	1.0	20	
Zinc	0.522	0.010	0.5	0.02105	100	70	130	0.5181	0.7	20	

Associated samples: H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C

Run ID :Run Order: ICPMS204-B_110509A: 29 SampType: Method Blank Sample ID: MB-12052 Method: E200.8

Analysis Date: 05/09/11 16:21 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.001	0.0007									
Antimony	8E-05	4E-05									
Arsenic	ND	5E-05									
Barium	ND	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	0.0002	6E-05									
Cobalt	ND	3E-05									
Copper	0.0005	0.0004									
Iron	0.001	0.0006									
Lead	3E-05	2E-05									
Magnesium	ND	0.003									
Manganese	0.0002	6E-05									
Nickel	ND	0.0002									
Potassium	ND	0.07									
Selenium	0.02										
Silver	ND	6E-05									
Sodium	0.1	0.04									
Thallium	ND	2E-05									
Vanadium	0.0002	5E-05									
Zinc	0.002	0.0003									

Associated samples: H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12064

Run ID :Run Order: ACCU-124 (14410200)_110503A: 25 SampType: Method Blank Sample ID: MB-12064 Method: A2540 D

Analysis Date: 05/03/11 13:42 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C ND 1

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: ACCU-124 (14410200)_110503A: 26 SampType: Laboratory Control Sample Sample ID: LCS-12064 Method: A2540 D

Analysis Date: 05/03/11 13:42 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C 1840 10 2000 92 70 130

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: ACCU-124 (14410200)_110503A: 28 SampType: Sample Duplicate Sample ID: H11050028-001ADUP Method: A2540 D

Analysis Date: 05/03/11 13:43 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C ND 10 5

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12065

Run ID :Run Order: ACCU-124 (14410200)_110503B: 1	SampType: Method Blank	Sample ID: MB-12065	Method: A2540 C
Analysis Date: 05/03/11 13:55	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	ND	1.0	
Associated samples: H11050028-001A; H11050028-002A; H11050028-003A			
Run ID :Run Order: ACCU-124 (14410200)_110503B: 2	SampType: Laboratory Control Sample	Sample ID: LCS-12065	Method: A2540 C
Analysis Date: 05/03/11 13:55	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	1860	10	2000 93 90 110
Associated samples: H11050028-001A; H11050028-002A; H11050028-003A			
Run ID :Run Order: ACCU-124 (14410200)_110503B: 4	SampType: Sample Duplicate	Sample ID: H11050015-001ADUP	Method: A2540 C
Analysis Date: 05/03/11 13:56	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	272	10	264 3.0 5
Associated samples: H11050028-001A; H11050028-002A; H11050028-003A			
Run ID :Run Order: ACCU-124 (14410200)_110503B: 6	SampType: Sample Matrix Spike	Sample ID: H11050015-002AMS	Method: A2540 C
Analysis Date: 05/03/11 13:56	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2120	10	2000 122 80 120
Associated samples: H11050028-001A; H11050028-002A; H11050028-003A			
Run ID :Run Order: ACCU-124 (14410200)_110503B: 16	SampType: Sample Duplicate	Sample ID: H11050018-002ADUP	Method: A2540 C
Analysis Date: 05/03/11 14:01	Units: mg/L	Prep Info: Prep Date: 5/3/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	378	10	364 3.8 5
Associated samples: H11050028-001A; H11050028-002A; H11050028-003A			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 19 of 38

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12066

Run ID :Run Order: ACCU-124 (14410200)_110503B: 26 SampType: Method Blank Sample ID: MB-12066 Method: A2540 C

Analysis Date: 05/03/11 14:04 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C ND 1.0

Associated samples: H11050028-004A; H11050028-005A

Run ID :Run Order: ACCU-124 (14410200)_110503B: 27 SampType: Laboratory Control Sample Sample ID: LCS-12066 Method: A2540 C

Analysis Date: 05/03/11 14:04 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 1940 10 2000 97 90 110

Associated samples: H11050028-004A; H11050028-005A

Run ID :Run Order: ACCU-124 (14410200)_110503B: 29 SampType: Sample Duplicate Sample ID: H11050028-004ADUP Method: A2540 C

Analysis Date: 05/03/11 14:05 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 118 10 114 3.4 5

Associated samples: H11050028-004A; H11050028-005A

Run ID :Run Order: ACCU-124 (14410200)_110503B: 31 SampType: Sample Matrix Spike Sample ID: H11050028-005AMS Method: A2540 C

Analysis Date: 05/03/11 14:06 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 2070 10 2000 126 97 80 120

Associated samples: H11050028-004A; H11050028-005A

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12157

Run ID :Run Order: HGCV201-H_110510A: 9	SampType: Method Blank				Sample ID: MB-12157				Method: E245.1		
Analysis Date: 05/10/11 15:39	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1.0E-05									

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Run ID :Run Order: HGCV201-H_110510A: 10	SampType: Laboratory Control Sample				Sample ID: LCS-12157				Method: E245.1		
Analysis Date: 05/10/11 15:41	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002		93	90	110				

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Run ID :Run Order: HGCV201-H_110510A: 14	SampType: Sample Matrix Spike				Sample ID: H11050015-003CMS				Method: E245.1		
Analysis Date: 05/10/11 15:51	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002		101	70	130				

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Run ID :Run Order: HGCV201-H_110510A: 15	SampType: Sample Matrix Spike Duplicate				Sample ID: H11050015-003CMSD				Method: E245.1		
Analysis Date: 05/10/11 15:53	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002		99	70	130	0.0002011	1.2	30	

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Run ID :Run Order: HGCV201-H_110510A: 26	SampType: Sample Matrix Spike				Sample ID: H11050028-005CMS				Method: E245.1		
Analysis Date: 05/10/11 16:20	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00022	0.00010	0.0002		110	70	130				

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBM Surface Water Section 35 Baseline

BatchID: 12157

Run ID :Run Order: HGCV201-H_110510A: 27	SampType: Sample Matrix Spike Duplicate	Sample ID: H11050028-005CMSD	Method: E245.1
Analysis Date: 05/10/11 16:22	Units: mg/L	Prep Info: Prep Date: 5/10/2011	Prep Method: E245.1
Analytes 1	Result	PQL	SPK value
Mercury	0.00021	0.00010	0.0002

Associated samples: **H11050028-001C; H11050028-002C; H11050028-003C; H11050028-004C; H11050028-005C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Date: 16-May-11

Run ID :Run Order: MAN-TECH_110503A: 8	SampType: Method Blank				Sample ID: MBLK				Method: A2320 B		
Analysis Date: 05/03/11 16:16	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	2	0.6									

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 10	SampType: Laboratory Control Sample				Sample ID: LCS-04292011				Method: A2320 B		
Analysis Date: 05/03/11 16:24	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	610	4.0	600	1.94	101	90	110				

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 57	SampType: Method Blank				Sample ID: MBLK				Method: A2320 B		
Analysis Date: 05/03/11 18:55	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	1.6	4.0									

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 59	SampType: Laboratory Control Sample				Sample ID: LCS-04292011				Method: A2320 B		
Analysis Date: 05/03/11 19:03	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	610	4.0	600	1.61	101	90	110				

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 63	SampType: Sample Matrix Spike				Sample ID: H11050028-003AMS				Method: A2320 B		
Analysis Date: 05/03/11 19:18	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	670	4.0	600	51.48	103	90	110				

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Run ID :Run Order: **MAN-TECH_110503A: 69** SampType: **Sample Duplicate** Sample ID: **H11050028-005ADUP** Method: **A2320 B**

Analysis Date: **05/03/11 19:38** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	62	4.0						56.33	9.4	20	
Bicarbonate as HCO ₃	76	4.0						68.72	9.4	20	
Carbonate as CO ₃	ND	4.0								20	

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Date: 16-May-11

Run ID :Run Order: MAN-TECH_110503A: 2		SampType: Continuing Calibration Verification Standard			Sample ID: CCV1-1905			Method: A4500-H B		
Analysis Date:	05/03/11 15:58	Units:	s.u.		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
pH		3.91	0.10	4		98	98	102		

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 3		SampType: Continuing Calibration Verification Standard			Sample ID: CCV-1943			Method: A4500-H B		
Analysis Date:	05/03/11 16:01	Units:	s.u.		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
pH		6.95	0.10	7		99	98	102		

Associated samples: **H11050028-001A; H11050028-002A**

Run ID :Run Order: MAN-TECH_110503A: 4		SampType: Continuing Calibration Verification Standard			Sample ID: CCV3-1664			Method: A4500-H B		
Analysis Date:	05/03/11 16:04	Units:	s.u.		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
pH		10.0	0.10	10		100	98	110		

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 5		SampType: Initial Calibration Verification Standard			Sample ID: ICV-1942			Method: A4500-H B		
Analysis Date:	05/03/11 16:07	Units:	s.u.		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
pH		6.97	0.10	7		100	99	101		

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: MAN-TECH_110503A: 41		SampType: Sample Duplicate			Sample ID: H11050018-003ADUP			Method: A4500-H B		
Analysis Date:	05/03/11 18:04	Units:	s.u.		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
pH		4.58	0.10				4.77		4.1	3

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Run ID :Run Order:	MAN-TECH_110503A: 56	SampType:	Continuing Calibration Verification Standard	Sample ID:	CCV-1943	Method:	A4500-H B
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Analysis Date:	05/03/11 18:50	Units:	s.u.	Prep Info:	Prep Date:	Prep Method:		
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	6.98	0.10	7		100	98	102				
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Associated samples: **H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order:	MAN-TECH_110503A: 70	SampType:	Sample Duplicate	Sample ID:	H11050028-005ADUP	Method:	A4500-H B
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Analysis Date:	05/03/11 19:38	Units:	s.u.	Prep Info:	Prep Date:	Prep Method:		
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	8.10	0.10				8.09	0.1	3			
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Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70698

Run ID :Run Order: IC101-H_110503B: 13	SampType: Initial Calibration Verification Standard	Sample ID: ICV050311-12	Method: E300.0
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Analysis Date: 05/03/11 18:09	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		101	90	110				
Sulfate	410	1.0	400		103	90	110				

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 14	SampType: Method Blank	Sample ID: ICB050311-13	Method: E300.0
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Analysis Date: 05/03/11 18:25	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.2									
Sulfate	ND	0.5									

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 15	SampType: Laboratory Fortified Blank	Sample ID: LFB050311-14	Method: E300.0
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Analysis Date: 05/03/11 18:40	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48	1.0	50		96	90	110				
Sulfate	200	1.1	200		99	90	110				

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 32	SampType: Continuing Calibration Verification Standard	Sample ID: CCV050311-30	Method: E300.0
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Analysis Date: 05/03/11 23:02	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		100	90	110				
Sulfate	400	1.0	400		101	90	110				

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 40	SampType: Sample Matrix Spike	Sample ID: H11050028-001AMS	Method: E300.0
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Analysis Date: 05/04/11 01:05	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48	1.0	50	0.25	96	90	110				
Sulfate	200	1.1	200	2.679	99	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70698

Run ID :Run Order: IC101-H_110503B: 40	SampType: Sample Matrix Spike	Sample ID: H11050028-001AMS	Method: E300.0
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Analysis Date: 05/04/11 01:05	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 41	SampType: Sample Matrix Spike Duplicate	Sample ID: H11050028-001AMSD	Method: E300.0
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Analysis Date: 05/04/11 01:21	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	48	1.0	50	0.25	96	90	110	48.32	0.1	20
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Sulfate	200	1.1	200	2.679	99	90	110	201.5	0.0	20
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Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 50	SampType: Sample Matrix Spike	Sample ID: H11050029-002AMS	Method: E300.0
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Analysis Date: 05/04/11 03:40	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50		99	90	110			
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Sulfate	720	1.1	200	464.7	125	90	110			
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S

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Run ID :Run Order: IC101-H_110503B: 51	SampType: Sample Matrix Spike Duplicate	Sample ID: H11050029-002AMSD	Method: E300.0
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Analysis Date: 05/04/11 03:55	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50		101	90	110	49.7	1.1	20
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Sulfate	730	1.1	200	464.7	131	90	110	715.5	1.5	20
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S

Associated samples: **H11050028-001A; H11050028-002A; H11050028-003A; H11050028-004A; H11050028-005A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 8 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 05/04/11 09:55 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.255	0.10	0.25		102	90	110				
Antimony	0.0521	0.050	0.05		104	90	110				
Arsenic	0.0506	0.0050	0.05		101	90	110				
Barium	0.0510	0.10	0.05		102	90	110				
Beryllium	0.0260	0.0010	0.025		104	90	110				
Cadmium	0.0269	0.0010	0.025		107	90	110				
Calcium	2.64	0.50	2.5		105	90	110				
Chromium	0.0501	0.010	0.05		100	90	110				
Cobalt	0.0529	0.010	0.05		106	90	110				
Copper	0.0515	0.010	0.05		103	90	110				
Iron	0.264	0.030	0.25		106	90	110				
Lead	0.0507	0.010	0.05		101	90	110				
Magnesium	2.58	0.50	2.5		103	90	110				
Manganese	0.253	0.010	0.25		101	90	110				
Nickel	0.0513	0.010	0.05		103	90	110				
Potassium	2.62	0.50	2.5		105	90	110				
Selenium	0.0510	0.0050	0.05		102	90	110				
Silver	0.0254	0.0050	0.025		101	90	110				
Sodium	2.61	0.50	2.5		105	90	110				
Thallium	0.0496	0.10	0.05		99	90	110				
Vanadium	0.0507	0.10	0.05		101	90	110				
Zinc	0.0523	0.010	0.05		105	90	110				

Associated samples: H11050028-001B; H11050028-001C; H11050028-002B; H11050028-002C; H11050028-003B; H11050028-003C; H11050028-004B; H11050028-004C;
H11050028-005B; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 10:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	43.0	0.10	40		108	70	130				
Antimony	0.000347	0.050									
Arsenic	0.000190	0.0050									
Barium	0.000189	0.10									
Beryllium	8.00E-06	0.0010									
Cadmium	0.000554	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 29 of 38

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 10:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	129	0.50									
Chromium	0.00221	0.010									
Cobalt	0.00194	0.010									
Copper	0.000460	0.010									
Iron	111	0.030	100		111	70	130				
Lead	0.000117	0.010									
Magnesium	44.1	0.50									
Manganese	0.00215	0.010									
Nickel	0.00107	0.010									
Potassium	43.5	0.50									
Selenium	0.000295	0.0050									
Silver	0.000183	0.0050									
Sodium	109	0.50									
Thallium	4.40E-05	0.10									
Vanadium	0.000221	0.10									
Zinc	0.00115	0.010									

Associated samples: H11050028-001B; H11050028-001C; H11050028-002B; H11050028-002C; H11050028-003B; H11050028-003C; H11050028-004B; H11050028-004C;
H11050028-005B; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 10:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.4	0.10	40		106	70	130				
Antimony	0.000346	0.050				0	0				
Arsenic	0.0111	0.0050	0.01		111	70	130				
Barium	0.000172	0.10				0	0				
Beryllium	2.10E-05	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		111	70	130				
Calcium	128	0.50	120		107	70	130				
Chromium	0.0237	0.010	0.02		119	70	130				
Cobalt	0.0248	0.010	0.02		124	70	130				
Copper	0.0217	0.010	0.02		108	70	130				
Iron	106	0.030	100		106	70	130				
Lead	8.20E-05	0.010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 10:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	43.4	0.50	40		109	70	130				
Manganese	0.0238	0.010	0.02		119	70	130				
Nickel	0.0226	0.010	0.02		113	70	130				
Potassium	43.6	0.50	40		109	70	130				
Selenium	0.0103	0.0050	0.01		103	70	130				
Silver	0.0216	0.0050	0.02		108	70	130				
Sodium	109	0.50	100		109	70	130				
Thallium	1.50E-05	0.10				0	0				
Vanadium	0.0223	0.10	0.02		111	70	130				
Zinc	0.0112	0.010	0.01		112	70	130				

Associated samples: H11050028-001B; H11050028-001C; H11050028-002B; H11050028-002C; H11050028-003B; H11050028-003C; H11050028-004B; H11050028-004C;
H11050028-005B; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 05/04/11 10:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0003									
Calcium	ND	0.003									
Magnesium	ND	0.0007									
Potassium	ND	0.010									
Sodium	0.004	0.003									

Associated samples: H11050028-001B; H11050028-002B; H11050028-003B; H11050028-004B; H11050028-005B

Run ID :Run Order: ICPMS204-B_110504A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 05/04/11 10:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0480	0.10	0.05		96	85	115				
Calcium	47.8	0.50	50		96	85	115				
Magnesium	46.7	0.50	50		93	85	115				
Potassium	47.8	0.50	50		96	85	115				
Sodium	46.2	0.50	50	0.003661	92	85	115				

Associated samples: H11050028-001B; H11050028-002B; H11050028-003B; H11050028-004B; H11050028-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 56 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 05/04/11 17:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.247	0.10	0.25		99	90	110				
Antimony	0.0501	0.050	0.05		100	90	110				
Arsenic	0.0510	0.0050	0.05		102	90	110				
Barium	0.0491	0.10	0.05		98	90	110				
Beryllium	0.0250	0.0010	0.025		100	90	110				
Cadmium	0.0259	0.0010	0.025		104	90	110				
Calcium	2.64	0.50	2.5		106	90	110				
Chromium	0.0500	0.010	0.05		100	90	110				
Cobalt	0.0512	0.010	0.05		102	90	110				
Copper	0.0519	0.010	0.05		104	90	110				
Iron	0.272	0.030	0.25		109	90	110				
Lead	0.0502	0.010	0.05		100	90	110				
Magnesium	2.57	0.50	2.5		103	90	110				
Manganese	0.247	0.010	0.25		99	90	110				
Nickel	0.0516	0.010	0.05		103	90	110				
Potassium	2.54	0.50	2.5		101	90	110				
Selenium	0.0526	0.0050	0.05		105	90	110				
Silver	0.0247	0.0050	0.025		99	90	110				
Sodium	2.60	0.50	2.5		104	90	110				
Thallium	0.0490	0.10	0.05		98	90	110				
Vanadium	0.0502	0.10	0.05		100	90	110				
Zinc	0.0522	0.010	0.05		104	90	110				

Associated samples: H11050028-001B; H11050028-001C; H11050028-002B; H11050028-002C; H11050028-003B; H11050028-003C; H11050028-004B; H11050028-004C;
H11050028-005B; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 57 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 17:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.3	0.10	40		96	70	130				
Antimony	0.000334	0.050									
Arsenic	0.000203	0.0050									
Barium	0.000151	0.10									
Beryllium	3.40E-05	0.0010									
Cadmium	0.000442	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 32 of 38

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 57 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 17:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	118	0.50									
Chromium	0.00201	0.010									
Cobalt	0.00177	0.010									
Copper	0.000415	0.010									
Iron	97.1	0.030	100		97	70	130				
Lead	0.000120	0.010									
Magnesium	40.5	0.50									
Manganese	0.00196	0.010									
Nickel	0.00133	0.010									
Potassium	39.9	0.50									
Selenium	0.000237	0.0050									
Silver	0.000122	0.0050									
Sodium	101	0.50									
Thallium	4.10E-05	0.10									
Vanadium	0.000188	0.10									
Zinc	0.00105	0.010									

Associated samples: H11050028-001B; H11050028-001C; H11050028-002B; H11050028-002C; H11050028-003B; H11050028-003C; H11050028-004B; H11050028-004C;
H11050028-005B; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 58 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 17:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.4	0.10	40		99	70	130				
Antimony	0.000317	0.050				0	0				
Arsenic	0.0106	0.0050	0.01		106	70	130				
Barium	0.000134	0.10				0	0				
Beryllium	2.10E-05	0.0010				0	0				
Cadmium	0.0103	0.0010	0.01		103	70	130				
Calcium	117	0.50	120		98	70	130				
Chromium	0.0220	0.010	0.02		110	70	130				
Cobalt	0.0228	0.010	0.02		114	70	130				
Copper	0.0203	0.010	0.02		101	70	130				
Iron	98.4	0.030	100		98	70	130				
Lead	7.30E-05	0.010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 58 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 17:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	40.5	0.50	40		101	70	130				
Manganese	0.0219	0.010	0.02		109	70	130				
Nickel	0.0216	0.010	0.02		108	70	130				
Potassium	39.7	0.50	40		99	70	130				
Selenium	0.00969	0.0050	0.01		97	70	130				
Silver	0.0196	0.0050	0.02		98	70	130				
Sodium	101	0.50	100		101	70	130				
Thallium	3.00E-06	0.10				0	0				
Vanadium	0.0207	0.10	0.02		103	70	130				
Zinc	0.0111	0.010	0.01		111	70	130				

Associated samples: H11050028-001B; H11050028-001C; H11050028-002B; H11050028-002C; H11050028-003B; H11050028-003C; H11050028-004B; H11050028-004C;
H11050028-005B; H11050028-005C

Run ID :Run Order: ICPMS204-B_110504A: 149 SampType: Sample Matrix Spike Sample ID: H11050029-001BMS Method: E200.8

Analysis Date: 05/05/11 00:17 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.205	0.10	0.05	0.1574	95	70	130				
Calcium	58.2	1.0	50	12.29	92	70	130				
Magnesium	54.5	1.0	50	7.583	94	70	130				
Potassium	47.5	1.0	50	0.3543	94	70	130				
Sodium	49.3	1.0	50	1.117	96	70	130				

Associated samples: H11050028-001B; H11050028-002B; H11050028-003B; H11050028-004B; H11050028-005B

Run ID :Run Order: ICPMS204-B_110504A: 150 SampType: Sample Matrix Spike Duplicate Sample ID: H11050029-001BMSD Method: E200.8

Analysis Date: 05/05/11 00:21 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.196	0.10	0.05	0.1574	78	70	130	0.205	4.2	20	
Calcium	56.3	1.0	50	12.29	88	70	130	58.19	3.2	20	
Magnesium	51.7	1.0	50	7.583	88	70	130	54.53	5.3	20	
Potassium	45.7	1.0	50	0.3543	91	70	130	47.53	4.0	20	
Sodium	46.3	1.0	50	1.117	90	70	130	49.3	6.2	20	

Associated samples: H11050028-001B; H11050028-002B; H11050028-003B; H11050028-004B; H11050028-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050028

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70858

Run ID :Run Order: ICPMS204-B_110509A: 8 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 05/09/11 14:49 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.248	0.010	0.25		99	90	110				
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Associated samples: H11050028-001C; H11050028-002C; H11050028-003C

Run ID :Run Order: ICPMS204-B_110509A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/09/11 14:53 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.00224	0.010									
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Associated samples: H11050028-001C; H11050028-002C; H11050028-003C

Run ID :Run Order: ICPMS204-B_110509A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/09/11 14:58 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.0224	0.010	0.02		112	70	130				
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Associated samples: H11050028-001C; H11050028-002C; H11050028-003C

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11050028

Login completed by: Tracy L. Lorash

Date Received: 5/2/2011

Reviewed by: BL2000\sdull

Received by: jdh

Reviewed Date: 5/5/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.6°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None

Analyte Limits For Quote #: H-645

Schedule Name <i>TestName</i>	Analyte	Report Limit	Units
<u>UBMC Surface Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

May 12, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11050031 Quote ID: H645 - UBMC

Project Name: UBMC Surface Water Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 1 sample for MT DEQ-Site Response on 5/2/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11050031-001	S35 SW05	04/28/11 17:17	05/02/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW05

Lab ID: H11050031-001

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/28/11 17:17

Date Received: 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	05/03/11 19:57 / zeg		MAN-TECH_110503A : 76		R70695
Conductivity	108	umhos/cm		1		A2510 B	05/03/11 11:50 / cmm		COND_110503A : 3410503A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/03/11 13:46 / cmm	05/03/11 13:16-124 (14410200)_110503A : 35			12064
Solids, Total Dissolved TDS @ 180 C	81	mg/L		10		A2540 C	05/03/11 14:07 / cmm	05/03/11 13:23-124 (14410200)_110503B : 34			12066
INORGANICS											
Alkalinity, Total as CaCO3	52	mg/L		4		A2320 B	05/03/11 19:57 / zeg		MAN-TECH_110503A : 75		R70695
Bicarbonate as HCO3	63	mg/L		4		A2320 B	05/03/11 19:57 / zeg		MAN-TECH_110503A : 75		R70695
Carbonate as CO3	ND	mg/L		4		A2320 B	05/03/11 19:57 / zeg		MAN-TECH_110503A : 75		R70695
Chloride	ND	mg/L		1		E300.0	05/04/11 04:10 / zeg		IC101-H_110503B : 52		R70698
Sulfate	3	mg/L		1		E300.0	05/04/11 04:10 / zeg		IC101-H_110503B : 52		R70698
Hardness as CaCO3	55	mg/L		1		A2340 B	05/06/11 09:58 / sld		WATERCALC_110506A : 4		R70790
METALS, DISSOLVED											
Aluminum	0.89	mg/L		0.03		E200.8	05/05/11 01:01 / dck		ICPMS204-B_110504A : 159		R70718
Calcium	13	mg/L		1		E200.8	05/05/11 01:01 / dck		ICPMS204-B_110504A : 159		R70718
Magnesium	5	mg/L		1		E200.8	05/05/11 01:01 / dck		ICPMS204-B_110504A : 159		R70718
Potassium	1	mg/L		1		E200.8	05/05/11 18:18 / dck		ICPMS204-B_110505A : 71		R70779
Sodium	2	mg/L		1		E200.8	05/05/11 01:01 / dck		ICPMS204-B_110504A : 159		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.83	mg/L		0.03		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Antimony	ND	mg/L		0.003		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Arsenic	ND	mg/L		0.003		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Barium	0.111	mg/L		0.005		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Beryllium	ND	mg/L		0.001		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Cadmium	ND	mg/L		0.00008		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Calcium	13	mg/L		1		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Chromium	ND	mg/L		0.001		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Cobalt	ND	mg/L		0.01		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Copper	0.003	mg/L		0.001		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Iron	0.54	mg/L		0.03		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35 SW05

Lab ID: H11050031-001

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 04/28/11 17:17

DateReceived: 05/02/11

Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Magnesium	5	mg/L		1		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Manganese	0.011	mg/L		0.005		E200.8	05/05/11 18:23 / dck	05/03/11 11:35	ICPMS204-B_110505A : 72		12052
Mercury	ND	mg/L		0.00001		E245.1	05/10/11 16:24 / stp	05/10/11 12:02	HGCV201-H_110510A : 28		12157
Nickel	ND	mg/L		0.01		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Potassium	ND	mg/L		1		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Selenium	ND	mg/L		0.001		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Silver	ND	mg/L		0.0005		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Sodium	2	mg/L		1		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Thallium	ND	mg/L		0.0002		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Vanadium	ND	mg/L		0.1		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Zinc	ND	mg/L		0.01		E200.8	05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 110503A-COND-PROBE

Run ID :Run Order: COND_110503A: 6		SampType: Initial Calibration Verification Standard				Sample ID: ICV1_110503A				Method: A2510 B		
Analysis Date:	05/03/11 11:03	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		978	1.0	1000		98	90	110				

Associated samples: **H11050031-001A**

Run ID :Run Order: COND_110503A: 8		SampType: Sample Duplicate				Sample ID: H11050015-001ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:23	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		428	1.0				422.9			1.2	10	

Associated samples: **H11050031-001A**

Run ID :Run Order: COND_110503A: 19		SampType: Sample Duplicate				Sample ID: H11050018-003ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:33	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		9.64	1.0				9.6			0.5	10	

Associated samples: **H11050031-001A**

Run ID :Run Order: COND_110503A: 29		SampType: Continuing Calibration Verification Standard				Sample ID: CCV6_110503A				Method: A2510 B		
Analysis Date:	05/03/11 14:35	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		1380	1.0	1412		98	90	110				

Associated samples: **H11050031-001A**

Run ID :Run Order: COND_110503A: 31		SampType: Sample Duplicate				Sample ID: H11050028-005ADUP				Method: A2510 B		
Analysis Date:	05/03/11 11:46	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		182	1.0				181.7			0.4	10	

Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 110510wa

Run ID :Run Order: **HGCV201-H_110510A: 6** SampType: Initial Calibration Verification Standard Sample ID: ICV Method: E245.1

Analysis Date: 05/10/11 15:32 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00019	0.00010	0.0002		95	90	110				
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Associated samples: **H11050031-001C**

Run ID :Run Order: **HGCV201-H_110510A: 22** SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E245.1

Analysis Date: 05/10/11 16:10 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00020	0.00010	0.0002		100	90	110				
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Associated samples: **H11050031-001C**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 69	SampType: Method Blank	Sample ID: MB-12052				Method: E200.8			
Analysis Date: 05/04/11 18:23	Units: mg/L	Prep Info: Prep Date: 5/3/2011				Prep Method: E200.2			
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPD Limit Qual
Aluminum	0.002	0.0007							
Antimony	ND	4E-05							
Arsenic	0.0002	5E-05							
Barium	0.0002	9E-05							
Beryllium	ND	2E-05							
Cadmium	ND	2E-05							
Calcium	ND	0.04							
Chromium	ND	6E-05							
Cobalt	ND	3E-05							
Copper	ND	0.0004							
Iron	ND	0.0006							
Lead	ND	2E-05							
Magnesium	0.004	0.003							
Manganese	ND	6E-05							
Nickel	ND	0.0002							
Potassium	ND	0.07							
Selenium	ND	0.0002							
Silver	ND	6E-05							
Sodium	0.1	0.04							
Thallium	ND	2E-05							
Vanadium	0.0001	5E-05							
Zinc	0.0009	0.0003							

Associated samples: **H11050031-001C**

Run ID :Run Order: ICPMS204-B_110504A: 70	SampType: Laboratory Control Sample	Sample ID: LCS-12052				Method: E200.8			
Analysis Date: 05/04/11 18:28	Units: mg/L	Prep Info: Prep Date: 5/3/2011				Prep Method: E200.2			
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPD Limit Qual
Aluminum	2.47	0.10	2.5	0.001809	99	85	115		
Antimony	0.533	0.0050	0.5		107	85	115		
Arsenic	0.528	0.0050	0.5	0.0001528	106	85	115		
Barium	0.512	0.10	0.5	0.0002495	102	85	115		
Beryllium	0.265	0.0010	0.25		106	85	115		
Cadmium	0.264	0.0010	0.25		106	85	115		

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 70 SampType: Laboratory Control Sample Sample ID: LCS-12052 Method: E200.8

Analysis Date: 05/04/11 18:28 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	27.9	1.0	25		112	85	115				
Chromium	0.525	0.010	0.5		105	85	115				
Cobalt	0.509	0.010	0.5		102	85	115				
Copper	0.530	0.010	0.5		106	85	115				
Iron	2.71	0.030	2.5		108	85	115				
Lead	0.525	0.010	0.5		105	85	115				
Magnesium	26.2	1.0	25	0.004364	105	85	115				
Manganese	2.48	0.010	2.5		99	85	115				
Nickel	0.528	0.010	0.5		106	85	115				
Potassium	26.2	1.0	25		105	85	115				
Selenium	0.530	0.0050	0.5		106	85	115				
Silver	0.0499	0.0050	0.05		100	85	115				
Sodium	26.5	1.0	25	0.1355	105	85	115				
Thallium	0.528	0.0050	0.5		106	85	115				
Vanadium	0.532	0.10	0.5	0.0001296	106	85	115				
Zinc	0.534	0.010	0.5	0.0009246	107	85	115				

Associated samples: H11050031-001C

Run ID :Run Order: ICPMS204-B_110504A: 78 SampType: Sample Matrix Spike Sample ID: H11050015-001CMS3 Method: E200.8

Analysis Date: 05/04/11 19:03 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3.32	0.10	2.5	0.5105	112	70	130				
Antimony	0.508	0.0050	0.5	0.0004997	102	70	130				
Arsenic	0.507	0.0050	0.5	0.001216	101	70	130				
Barium	1.25	0.10	0.5	0.7832	94	70	130				
Beryllium	0.242	0.0010	0.25	0.0000304	97	70	130				
Cadmium	0.253	0.0010	0.25	0.0001095	101	70	130				
Calcium	94.3	1.0	25	68.77	102	70	130				
Chromium	0.504	0.010	0.5	0.001351	100	70	130				
Cobalt	0.497	0.010	0.5	0.0005267	99	70	130				
Copper	0.511	0.010	0.5	0.007801	101	70	130				
Iron	3.64	0.030	2.5	0.9188	109	70	130				
Lead	0.509	0.010	0.5	0.001487	101	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 78 SampType: Sample Matrix Spike Sample ID: H11050015-001CMS3 Method: E200.8

Analysis Date: 05/04/11 19:03 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	39.4	1.0	25	15.26	96	70	130				
Manganese	2.48	0.010	2.5	0.0276	98	70	130				
Nickel	0.501	0.010	0.5	0.001447	100	70	130				
Potassium	27.2	1.0	25	1.933	101	70	130				
Selenium	0.504	0.0050	0.5	0.0001836	101	70	130				
Silver	0.0483	0.0050	0.05	0.0004189	96	70	130				
Sodium	29.4	1.0	25	4.459	100	70	130				
Thallium	0.507	0.0050	0.5	0.000022	101	70	130				
Vanadium	0.510	0.10	0.5	0.0006825	102	70	130				
Zinc	0.518	0.010	0.5	0.02105	99	70	130				

Associated samples: **H11050031-001C**

Run ID :Run Order: ICPMS204-B_110504A: 79 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-001CMSD3 Method: E200.8

Analysis Date: 05/04/11 19:07 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3.30	0.10	2.5	0.5105	112	70	130	3.321	0.6	20	
Antimony	0.514	0.0050	0.5	0.0004997	103	70	130	0.508	1.2	20	
Arsenic	0.507	0.0050	0.5	0.001216	101	70	130	0.507	0.0	20	
Barium	1.26	0.10	0.5	0.7832	95	70	130	1.252	0.3	20	
Beryllium	0.246	0.0010	0.25	0.0000304	98	70	130	0.2418	1.6	20	
Cadmium	0.255	0.0010	0.25	0.0001095	102	70	130	0.2527	0.9	20	
Calcium	94.4	1.0	25	68.77	102	70	130	94.26	0.1	20	
Chromium	0.512	0.010	0.5	0.001351	102	70	130	0.5036	1.6	20	
Cobalt	0.497	0.010	0.5	0.0005267	99	70	130	0.4967	0.0	20	
Copper	0.511	0.010	0.5	0.007801	101	70	130	0.5106	0.0	20	
Iron	3.44	0.030	2.5	0.9188	101	70	130	3.645	5.7	20	
Lead	0.512	0.010	0.5	0.001487	102	70	130	0.5087	0.7	20	
Magnesium	39.8	1.0	25	15.26	98	70	130	39.38	1.1	20	
Manganese	2.48	0.010	2.5	0.0276	98	70	130	2.478	0.2	20	
Nickel	0.506	0.010	0.5	0.001447	101	70	130	0.5013	1.0	20	
Potassium	27.4	1.0	25	1.933	102	70	130	27.2	0.6	20	
Selenium	0.480	0.0050	0.5	0.0001836	96	70	130	0.5037	4.8	20	
Silver	0.0488	0.0050	0.05	0.0004189	97	70	130	0.04826	1.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12052

Run ID :Run Order: ICPMS204-B_110504A: 79 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-001CMSD3 Method: E200.8

Analysis Date: 05/04/11 19:07 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	30.0	1.0	25	4.459	102	70	130	29.4	2.1	20	
Thallium	0.509	0.0050	0.5	0.000022	102	70	130	0.5066	0.4	20	
Vanadium	0.515	0.10	0.5	0.0006825	103	70	130	0.51	1.0	20	
Zinc	0.522	0.010	0.5	0.02105	100	70	130	0.5181	0.7	20	

Associated samples: **H11050031-001C**

Run ID :Run Order: ICPMS204-B_110505A: 46 SampType: Method Blank Sample ID: MB-12052 Method: E200.8

Analysis Date: 05/05/11 16:29 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.0007									
Antimony	ND	4E-05									
Arsenic	0.0002	5E-05									
Barium	0.0002	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	ND	6E-05									
Cobalt	ND	3E-05									
Copper	ND	0.0004									
Iron	0.002	0.0006									
Lead	ND	2E-05									
Magnesium	0.004	0.003									
Manganese	ND	6E-05									
Nickel	ND	0.0002									
Potassium	ND	0.07									
Selenium	0.02										
Silver	ND	6E-05									
Sodium	0.2	0.04									
Thallium	ND	2E-05									
Vanadium	0.0002	5E-05									
Zinc	0.0009	0.0003									

Associated samples: **H11050031-001C**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12064

Run ID :Run Order: ACCU-124 (14410200)_110503A: 25 SampType: Method Blank Sample ID: MB-12064 Method: A2540 D

Analysis Date: 05/03/11 13:42 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	1									
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Associated samples: **H11050031-001A**

Run ID :Run Order: ACCU-124 (14410200)_110503A: 26 SampType: Laboratory Control Sample Sample ID: LCS-12064 Method: A2540 D

Analysis Date: 05/03/11 13:42 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	1840	10	2000		92	70	130				
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Associated samples: **H11050031-001A**

Run ID :Run Order: ACCU-124 (14410200)_110503A: 28 SampType: Sample Duplicate Sample ID: H11050028-001ADUP Method: A2540 D

Analysis Date: 05/03/11 13:43 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	10									5
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Associated samples: **H11050031-001A**

Run ID :Run Order: ACCU-124 (14410200)_110503A: 39 SampType: Sample Duplicate Sample ID: H11050038-003CDUP Method: A2540 D

Analysis Date: 05/03/11 15:06 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	22900	10				18870			19	5	R
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Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 10 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12066

Run ID :Run Order: ACCU-124 (14410200)_110503B: 26 SampType: Method Blank Sample ID: MB-12066 Method: A2540 C

Analysis Date: 05/03/11 14:04 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C ND 1.0

Associated samples: **H11050031-001A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 27 SampType: Laboratory Control Sample Sample ID: LCS-12066 Method: A2540 C

Analysis Date: 05/03/11 14:04 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 1940 10 2000 97 90 110

Associated samples: **H11050031-001A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 29 SampType: Sample Duplicate Sample ID: H11050028-004ADUP Method: A2540 C

Analysis Date: 05/03/11 14:05 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 118 10 114 3.4 5

Associated samples: **H11050031-001A**

Run ID :Run Order: ACCU-124 (14410200)_110503B: 31 SampType: Sample Matrix Spike Sample ID: H11050028-005AMS Method: A2540 C

Analysis Date: 05/03/11 14:06 Units: mg/L Prep Info: Prep Date: 5/3/2011 Prep Method: A2540 C

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 2070 10 2000 126 97 80 120

Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 11 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 12157

Run ID :Run Order: HGCV201-H_110510A: 9	SampType: Method Blank				Sample ID: MB-12157				Method: E245.1		
Analysis Date: 05/10/11 15:39	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	3E-06									

Associated samples: **H11050031-001C**

Run ID :Run Order: HGCV201-H_110510A: 10	SampType: Laboratory Control Sample				Sample ID: LCS-12157				Method: E245.1		
Analysis Date: 05/10/11 15:41	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002		93	90	110				

Associated samples: **H11050031-001C**

Run ID :Run Order: HGCV201-H_110510A: 26	SampType: Sample Matrix Spike				Sample ID: H11050028-005CMS				Method: E245.1		
Analysis Date: 05/10/11 16:20	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00022	0.00010	0.0002		110	70	130				

Associated samples: **H11050031-001C**

Run ID :Run Order: HGCV201-H_110510A: 27	SampType: Sample Matrix Spike Duplicate				Sample ID: H11050028-005CMSD				Method: E245.1		
Analysis Date: 05/10/11 16:22	Units: mg/L				Prep Info: Prep Date: 5/10/2011				Prep Method: E245.1		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002		104	70	130	0.0002206	5.9	30	

Associated samples: **H11050031-001C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 12 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Run ID :Run Order: MAN-TECH_110503A: 8	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
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Analysis Date: 05/03/11 16:16	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	2	0.6
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 10	SampType: Laboratory Control Sample	Sample ID: LCS-04292011	Method: A2320 B
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Analysis Date: 05/03/11 16:24	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	610	4.0	600	1.94	101	90	110				
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 57	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
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Analysis Date: 05/03/11 18:55	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	2	0.6
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 59	SampType: Laboratory Control Sample	Sample ID: LCS-04292011	Method: A2320 B
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Analysis Date: 05/03/11 19:03	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	610	4.0	600	1.61	101	90	110				
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 63	SampType: Sample Matrix Spike	Sample ID: H11050028-003AMS	Method: A2320 B
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Analysis Date: 05/03/11 19:18	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	670	4.0	600	51.48	103	90	110				
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Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Run ID :Run Order: MAN-TECH_110503A: 69		SampType: Sample Duplicate			Sample ID: H11050028-005ADUP				Method: A2320 B			
Analysis Date: 05/03/11 19:38		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3		62		4.0					56.33	9.4	20	
Bicarbonate as HCO3		76		4.0					68.72	9.4	20	
Carbonate as CO3		ND		4.0							20	

Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 14 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Run ID :Run Order: MAN-TECH_110503A: 2	SampType: Continuing Calibration Verification Standard	Sample ID: CCV1-1905	Method: A4500-H B
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Analysis Date: 05/03/11 15:58	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	3.91	0.10	4		98	98	102				
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 4	SampType: Continuing Calibration Verification Standard	Sample ID: CCV3-1664	Method: A4500-H B
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Analysis Date: 05/03/11 16:04	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	10.0	0.10	10		100	98	110				
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 5	SampType: Initial Calibration Verification Standard	Sample ID: ICV-1942	Method: A4500-H B
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Analysis Date: 05/03/11 16:07	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	6.97	0.10	7		100	99	101				
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 17	SampType: Sample Duplicate	Sample ID: H11050015-001ADUP	Method: A4500-H B
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Analysis Date: 05/03/11 16:54	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	8.15	0.10				8.1	0.6	3			
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Associated samples: **H11050031-001A**

Run ID :Run Order: MAN-TECH_110503A: 56	SampType: Continuing Calibration Verification Standard	Sample ID: CCV-1943	Method: A4500-H B
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Analysis Date: 05/03/11 18:50	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	6.98	0.10	7		100	98	102				
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Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70695

Run ID :Run Order: MAN-TECH_110503A: 70	SampType: Sample Duplicate	Sample ID: H11050028-005ADUP	Method: A4500-H B
Analysis Date: 05/03/11 19:38	Units: s.u.	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val
pH	8.10	0.10	8.09 0.1 3

Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70698

Run ID :Run Order: IC101-H_110503B: 13 SampType: Initial Calibration Verification Standard Sample ID: ICV050311-12 Method: E300.0

Analysis Date: 05/03/11 18:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		101	90	110				
Sulfate	410	1.0	400		103	90	110				

Associated samples: **H11050031-001A**

Run ID :Run Order: IC101-H_110503B: 14 SampType: Method Blank Sample ID: ICB050311-13 Method: E300.0

Analysis Date: 05/03/11 18:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.2									
Sulfate	ND	0.5									

Associated samples: **H11050031-001A**

Run ID :Run Order: IC101-H_110503B: 15 SampType: Laboratory Fortified Blank Sample ID: LFB050311-14 Method: E300.0

Analysis Date: 05/03/11 18:40 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48	1.0	50		96	90	110				
Sulfate	200	1.1	200		99	90	110				

Associated samples: **H11050031-001A**

Run ID :Run Order: IC101-H_110503B: 46 SampType: Continuing Calibration Verification Standard Sample ID: CCV050311-44 Method: E300.0

Analysis Date: 05/04/11 02:38 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		101	90	110				
Sulfate	400	1.0	400		101	90	110				

Associated samples: **H11050031-001A**

Run ID :Run Order: IC101-H_110503B: 50 SampType: Sample Matrix Spike Sample ID: H11050029-002AMS Method: E300.0

Analysis Date: 05/04/11 03:40 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	50	1.0	50		99	90	110				
Sulfate	720	1.1	200	464.7	125	90	110				S

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70698

Run ID :Run Order: IC101-H_110503B: 50 SampType: Sample Matrix Spike Sample ID: H11050029-002AMS Method: E300.0

Analysis Date: 05/04/11 03:40 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11050031-001A**

Run ID :Run Order: IC101-H_110503B: 51 SampType: Sample Matrix Spike Duplicate Sample ID: H11050029-002AMSD Method: E300.0

Analysis Date: 05/04/11 03:55 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50		101	90	110	49.7	1.1	20	
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Sulfate	730	1.1	200	464.7	131	90	110	715.5	1.5	20	S
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Associated samples: **H11050031-001A**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 8		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD			Method: E200.8				
Analysis Date: 05/04/11 09:55		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	21	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.255	0.10	0.25		102	90	110				
Antimony		0.0521	0.050	0.05		104	90	110				
Arsenic		0.0506	0.0050	0.05		101	90	110				
Barium		0.0510	0.10	0.05		102	90	110				
Beryllium		0.0260	0.0010	0.025		104	90	110				
Cadmium		0.0269	0.0010	0.025		107	90	110				
Calcium		2.64	0.50	2.5		105	90	110				
Chromium		0.0501	0.010	0.05		100	90	110				
Cobalt		0.0529	0.010	0.05		106	90	110				
Copper		0.0515	0.010	0.05		103	90	110				
Iron		0.264	0.030	0.25		106	90	110				
Lead		0.0507	0.010	0.05		101	90	110				
Magnesium		2.58	0.50	2.5		103	90	110				
Nickel		0.0513	0.010	0.05		103	90	110				
Potassium		2.62	0.50	2.5		105	90	110				
Selenium		0.0510	0.0050	0.05		102	90	110				
Silver		0.0254	0.0050	0.025		101	90	110				
Sodium		2.61	0.50	2.5		105	90	110				
Thallium		0.0496	0.10	0.05		99	90	110				
Vanadium		0.0507	0.10	0.05		101	90	110				
Zinc		0.0523	0.010	0.05		105	90	110				

Associated samples: **H11050031-001B; H11050031-001C**

Run ID :Run Order: ICPMS204-B_110504A: 9		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 05/04/11 10:00		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	21	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		43.0	0.10	40		108	70	130				
Antimony		0.000347	0.050									
Arsenic		0.000190	0.0050									
Barium		0.000189	0.10									
Beryllium		8.00E-06	0.0010									
Cadmium		0.000554	0.0010									
Calcium		129	0.50									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 19 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 10:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 21	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.00221	0.010									
Cobalt	0.00194	0.010									
Copper	0.000460	0.010									
Iron	111	0.030	100		111	70	130				
Lead	0.000117	0.010									
Magnesium	44.1	0.50									
Nickel	0.00107	0.010									
Potassium	43.5	0.50									
Selenium	0.000295	0.0050									
Silver	0.000183	0.0050									
Sodium	109	0.50									
Thallium	4.40E-05	0.10									
Vanadium	0.000221	0.10									
Zinc	0.00115	0.010									

Associated samples: **H11050031-001B; H11050031-001C**

Run ID :Run Order: ICPMS204-B_110504A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 10:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 21	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.4	0.10	40		106	70	130				
Antimony	0.000346	0.050				0	0				
Arsenic	0.0111	0.0050	0.01		111	70	130				
Barium	0.000172	0.10				0	0				
Beryllium	2.10E-05	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		111	70	130				
Calcium	128	0.50	120		107	70	130				
Chromium	0.0237	0.010	0.02		119	70	130				
Cobalt	0.0248	0.010	0.02		124	70	130				
Copper	0.0217	0.010	0.02		108	70	130				
Iron	106	0.030	100		106	70	130				
Lead	8.20E-05	0.010				0	0				
Magnesium	43.4	0.50	40		109	70	130				
Nickel	0.0226	0.010	0.02		113	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 20 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 10:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	43.6	0.50	40		109	70	130				
Selenium	0.0103	0.0050	0.01		103	70	130				
Silver	0.0216	0.0050	0.02		108	70	130				
Sodium	109	0.50	100		109	70	130				
Thallium	1.50E-05	0.10				0	0				
Vanadium	0.0223	0.10	0.02		111	70	130				
Zinc	0.0112	0.010	0.01		112	70	130				

Associated samples: H11050031-001B; H11050031-001C

Run ID :Run Order: ICPMS204-B_110504A: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 05/04/11 10:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0003									
Calcium	ND	0.003									
Magnesium	ND	0.0007									
Sodium	0.004	0.003									

Associated samples: H11050031-001B

Run ID :Run Order: ICPMS204-B_110504A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 05/04/11 10:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0480	0.10	0.05		96	85	115				
Calcium	47.8	0.50	50		96	85	115				
Magnesium	46.7	0.50	50		93	85	115				
Sodium	46.2	0.50	50	0.003661	92	85	115				

Associated samples: H11050031-001B

Run ID :Run Order: ICPMS204-B_110504A: 56 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 05/04/11 17:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.247	0.10	0.25		99	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 56		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD			Method: E200.8				
Analysis Date: 05/04/11 17:25		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	21	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony		0.0501	0.050	0.05		100	90	110				
Arsenic		0.0510	0.0050	0.05		102	90	110				
Barium		0.0491	0.10	0.05		98	90	110				
Beryllium		0.0250	0.0010	0.025		100	90	110				
Cadmium		0.0259	0.0010	0.025		104	90	110				
Calcium		2.64	0.50	2.5		106	90	110				
Chromium		0.0500	0.010	0.05		100	90	110				
Cobalt		0.0512	0.010	0.05		102	90	110				
Copper		0.0519	0.010	0.05		104	90	110				
Iron		0.272	0.030	0.25		109	90	110				
Lead		0.0502	0.010	0.05		100	90	110				
Magnesium		2.57	0.50	2.5		103	90	110				
Nickel		0.0516	0.010	0.05		103	90	110				
Potassium		2.54	0.50	2.5		101	90	110				
Selenium		0.0526	0.0050	0.05		105	90	110				
Silver		0.0247	0.0050	0.025		99	90	110				
Sodium		2.60	0.50	2.5		104	90	110				
Thallium		0.0490	0.10	0.05		98	90	110				
Vanadium		0.0502	0.10	0.05		100	90	110				
Zinc		0.0522	0.010	0.05		104	90	110				

Associated samples: **H11050031-001B; H11050031-001C**

Run ID :Run Order: ICPMS204-B_110504A: 57		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 05/04/11 17:30		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	21	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		38.3	0.10	40		96	70	130				
Antimony		0.000334	0.050									
Arsenic		0.000203	0.0050									
Barium		0.000151	0.10									
Beryllium		3.40E-05	0.0010									
Cadmium		0.000442	0.0010									
Calcium		118	0.50									
Chromium		0.00201	0.010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 57 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 05/04/11 17:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.00177	0.010									
Copper	0.000415	0.010									
Iron	97.1	0.030	100		97	70	130				
Lead	0.000120	0.010									
Magnesium	40.5	0.50									
Nickel	0.00133	0.010									
Potassium	39.9	0.50									
Selenium	0.000237	0.0050									
Silver	0.000122	0.0050									
Sodium	101	0.50									
Thallium	4.10E-05	0.10									
Vanadium	0.000188	0.10									
Zinc	0.00105	0.010									

Associated samples: H11050031-001B; H11050031-001C

Run ID :Run Order: ICPMS204-B_110504A: 58 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 17:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.4	0.10	40		99	70	130				
Antimony	0.000317	0.050				0	0				
Arsenic	0.0106	0.0050	0.01		106	70	130				
Barium	0.000134	0.10				0	0				
Beryllium	2.10E-05	0.0010				0	0				
Cadmium	0.0103	0.0010	0.01		103	70	130				
Calcium	117	0.50	120		98	70	130				
Chromium	0.0220	0.010	0.02		110	70	130				
Cobalt	0.0228	0.010	0.02		114	70	130				
Copper	0.0203	0.010	0.02		101	70	130				
Iron	98.4	0.030	100		98	70	130				
Lead	7.30E-05	0.010				0	0				
Magnesium	40.5	0.50	40		101	70	130				
Nickel	0.0216	0.010	0.02		108	70	130				
Potassium	39.7	0.50	40		99	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70718

Run ID :Run Order: ICPMS204-B_110504A: 58 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 05/04/11 17:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.00969	0.0050	0.01		97	70	130				
Silver	0.0196	0.0050	0.02		98	70	130				
Sodium	101	0.50	100		101	70	130				
Thallium	3.00E-06	0.10				0	0				
Vanadium	0.0207	0.10	0.02		103	70	130				
Zinc	0.0111	0.010	0.01		111	70	130				

Associated samples: H11050031-001B; H11050031-001C

Run ID :Run Order: ICPMS204-B_110504A: 149 SampType: Sample Matrix Spike Sample ID: H11050029-001BMS Method: E200.8

Analysis Date: 05/05/11 00:17 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.205	0.10	0.05	0.1574	95	70	130				
Calcium	58.2	1.0	50	12.29	92	70	130				
Magnesium	54.5	1.0	50	7.583	94	70	130				
Sodium	49.3	1.0	50	1.117	96	70	130				

Associated samples: H11050031-001B

Run ID :Run Order: ICPMS204-B_110504A: 150 SampType: Sample Matrix Spike Duplicate Sample ID: H11050029-001BMSD Method: E200.8

Analysis Date: 05/05/11 00:21 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.196	0.10	0.05	0.1574	78	70	130	0.205	4.2	20	
Calcium	56.3	1.0	50	12.29	88	70	130	58.19	3.2	20	
Magnesium	51.7	1.0	50	7.583	88	70	130	54.53	5.3	20	
Sodium	46.3	1.0	50	1.117	90	70	130	49.3	6.2	20	

Associated samples: H11050031-001B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70779

Run ID :Run Order: ICPMS204-B_110505A: 7	SampType: Initial Calibration Verification Standard	Sample ID: ICV STD	Method: E200.8
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Analysis Date: 05/05/11 13:29	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.244	0.010	0.25		98	90	110				
Potassium	2.46	0.50	2.5		99	90	110				

Associated samples: **H11050031-001B; H11050031-001C**

Run ID :Run Order: ICPMS204-B_110505A: 8	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 05/05/11 13:33	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.00179	0.010									
Potassium	39.1	0.50									

Associated samples: **H11050031-001B; H11050031-001C**

Run ID :Run Order: ICPMS204-B_110505A: 9	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 05/05/11 13:38	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0213	0.010	0.02		106	70	130				
Potassium	39.2	0.50	40		98	70	130				

Associated samples: **H11050031-001B; H11050031-001C**

Run ID :Run Order: ICPMS204-B_110505A: 19	SampType: Method Blank	Sample ID: ICB	Method: E200.8
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Analysis Date: 05/05/11 14:32	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	0.02	0.010									

Associated samples: **H11050031-001B**

Run ID :Run Order: ICPMS204-B_110505A: 20	SampType: Laboratory Fortified Blank	Sample ID: LFB	Method: E200.8
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Analysis Date: 05/05/11 14:36	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	48.0	0.50	50	0.01654	96	85	115				

Associated samples: **H11050031-001B**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 25 of 29

Client: MT DEQ-Site Response
Work Order: H11050031

ANALYTICAL QC SUMMARY REPORT

Date: 16-May-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R70779

Run ID :Run Order: ICPMS204-B_110505A: 49 SampType: Sample Matrix Spike Sample ID: H11050015-004CMS Method: E200.8

Analysis Date: 05/05/11 16:42 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Potassium	49.4	1.0	50		99	70	130				
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Associated samples: **H11050031-001B**

Run ID :Run Order: ICPMS204-B_110505A: 54 SampType: Sample Matrix Spike Duplicate Sample ID: H11050015-004CMSD Method: E200.8

Analysis Date: 05/05/11 17:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Potassium	49.1	1.0	50		98	70	130	49.43	0.6	20	
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Associated samples: **H11050031-001B**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 26 of 29

Workorder Receipt Checklist



MT DEQ-Site Response

H11050031

Login completed by: Tracy L. Lorash

Date Received: 5/2/2011

Reviewed by: BL2000\kwiegand

Received by: jdh

Reviewed Date: 5/4/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.6°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
JBMC Surface Water Section 35 Baseline			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

July 24, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11060300 Quote ID: H645 - UBMC

Project Name: Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 6 samples for MT DEQ-Site Response on 6/15/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11060300-001	S35SW04	06/14/11 12:30	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060300-002	S35SW03	06/14/11 13:15	06/15/11	Aqueous	Same As Above
H11060300-003	S35SW01	06/14/11 14:10	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060300-004	S35SW06	06/14/11 14:10	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060300-005	S35SW02	06/14/11 14:50	06/15/11	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H11060300-006	S35SW05	06/14/11 16:00	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
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This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response**Project:** Section 35 Baseline**Sample Delivery Group:** H11060300**Report Date:** 07/24/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11060300-001
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 12:30 **DateReceived:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.		0.1		A4500-H B	06/16/11 16:23 / zeg		MAN-TECH_110617B : 55		R71916
Conductivity	155	umhos/cm		1		A2510 B	06/16/11 10:44 / cmm		COND_110616B : 2810616A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/16/11 11:25 / cmm	06/16/11 09:53-124 (14410200)_110616A : 31			12579
Solids, Total Dissolved TDS @ 180 C	34	mg/L		10		A2540 C	06/16/11 11:19 / cmm	06/16/11 09:57-124 (14410200)_110616B : 24			12580
INORGANICS											
Alkalinity, Total as CaCO ₃	60	mg/L		4		A2320 B	06/16/11 16:23 / zeg		MAN-TECH_110617B : 54		R71916
Bicarbonate as HCO ₃	74	mg/L		4		A2320 B	06/16/11 16:23 / zeg		MAN-TECH_110617B : 54		R71916
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/16/11 16:23 / zeg		MAN-TECH_110617B : 54		R71916
Chloride	ND	mg/L		1		E300.0	06/18/11 18:22 / zeg		IC101-H_110618A : 37		R71954
Sulfate	13	mg/L		1		E300.0	06/18/11 18:22 / zeg		IC101-H_110618A : 37		R71954
Hardness as CaCO ₃	69	mg/L		1		A2340 B	06/23/11 07:56 / sld		WATERCALC_110623B : 9		R72092
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/22/11 00:57 / dck		ICPMS204-B_110620B : 274		R72000
Calcium	15	mg/L		1		E200.8	06/22/11 00:57 / dck		ICPMS204-B_110620B : 274		R72000
Magnesium	7	mg/L		1		E200.7	06/16/11 14:07 / sld		ICP2-HE_110616A : 48		R71921
Potassium	ND	mg/L		1		E200.7	06/16/11 14:07 / sld		ICP2-HE_110616A : 48		R71921
Sodium	2	mg/L		1		E200.7	06/16/11 14:07 / sld		ICP2-HE_110616A : 48		R71921
METALS, TOTAL RECOVERABLE											
Aluminum	0.04	mg/L		0.03		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Antimony	ND	mg/L		0.003		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Arsenic	ND	mg/L		0.003		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Barium	0.157	mg/L		0.005		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Beryllium	ND	mg/L		0.001		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Cadmium	0.00047	mg/L		0.00008		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Calcium	15	mg/L		1		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Chromium	ND	mg/L		0.001		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Cobalt	ND	mg/L		0.01		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Copper	0.003	mg/L		0.001		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Iron	0.08	mg/L		0.03		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW04

Lab ID: H11060300-001

Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 12:30

DateReceived: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	0.0008	mg/L		0.0005		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Magnesium	7	mg/L		1		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Manganese	0.017	mg/L		0.005		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Mercury	ND	mg/L		0.00001		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Nickel	ND	mg/L		0.01		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Potassium	ND	mg/L		1		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Selenium	ND	mg/L		0.001		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Silver	ND	mg/L		0.0005		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Sodium	2	mg/L		1		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Thallium	ND	mg/L		0.0002		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Vanadium	ND	mg/L		0.1		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000
Zinc	0.17	mg/L		0.01		E200.8	06/22/11 01:19 / dck		ICPMS204-B_110620B : 279		R72000

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW03

Lab ID: H11060300-002

Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 13:15

DateReceived: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.		0.1		A4500-H B	06/16/11 16:30 / zeg		MAN-TECH_110617B : 57		R71916
Conductivity	155	umhos/cm		1		A2510 B	06/16/11 10:45 / cmm		COND_110616B : 2910616A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/16/11 11:25 / cmm	06/16/11 09:53-124 (14410200)_110616A : 32			12579
Solids, Total Dissolved TDS @ 180 C	54	mg/L		10		A2540 C	06/16/11 11:20 / cmm	06/16/11 09:57-124 (14410200)_110616B : 25			12580
INORGANICS											
Alkalinity, Total as CaCO ₃	60	mg/L		4		A2320 B	06/16/11 16:30 / zeg		MAN-TECH_110617B : 56		R71916
Bicarbonate as HCO ₃	73	mg/L		4		A2320 B	06/16/11 16:30 / zeg		MAN-TECH_110617B : 56		R71916
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/16/11 16:30 / zeg		MAN-TECH_110617B : 56		R71916
Chloride	ND	mg/L		1		E300.0	06/18/11 18:38 / zeg		IC101-H_110618A : 38		R71954
Sulfate	13	mg/L		1		E300.0	06/18/11 18:38 / zeg		IC101-H_110618A : 38		R71954
Hardness as CaCO ₃	68	mg/L		1		A2340 B	06/23/11 07:56 / sld		WATERCALC_110623B : 10		R72092
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/22/11 01:24 / dck		ICPMS204-B_110620B : 280		R72000
Calcium	15	mg/L		1		E200.8	06/22/11 01:24 / dck		ICPMS204-B_110620B : 280		R72000
Magnesium	7	mg/L		1		E200.7	06/16/11 14:11 / sld		ICP2-HE_110616A : 49		R71921
Potassium	ND	mg/L		1		E200.7	06/16/11 14:11 / sld		ICP2-HE_110616A : 49		R71921
Sodium	2	mg/L		1		E200.7	06/16/11 14:11 / sld		ICP2-HE_110616A : 49		R71921
METALS, TOTAL RECOVERABLE											
Aluminum	0.04	mg/L		0.03		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Antimony	ND	mg/L		0.003		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Arsenic	ND	mg/L		0.003		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Barium	0.158	mg/L		0.005		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Beryllium	ND	mg/L		0.001		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Cadmium	0.00046	mg/L		0.00008		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Calcium	15	mg/L		1		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Chromium	ND	mg/L		0.001		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Cobalt	ND	mg/L		0.01		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Copper	0.004	mg/L		0.001		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Iron	0.08	mg/L		0.03		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW03

Lab ID: H11060300-002

Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 13:15

DateReceived: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	0.0009	mg/L		0.0005		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Magnesium	7	mg/L		1		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Manganese	0.016	mg/L		0.005		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Mercury	ND	mg/L		0.00001		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Nickel	ND	mg/L		0.01		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Potassium	ND	mg/L		1		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Selenium	ND	mg/L		0.001		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Silver	ND	mg/L		0.0005		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Sodium	2	mg/L		1		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Thallium	ND	mg/L		0.0002		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Vanadium	ND	mg/L		0.1		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000
Zinc	0.17	mg/L		0.01		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281		R72000

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11060300-003
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:10 **DateReceived:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.		0.1		A4500-H B	06/16/11 16:53 / zeg		MAN-TECH_110617B : 64		R71916
Conductivity	116	umhos/cm		1		A2510 B	06/16/11 10:46 / cmm		COND_110616B : 3110616A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/16/11 11:25 / cmm	06/16/11 09:53-124 (14410200)_110616A : 33			12579
Solids, Total Dissolved TDS @ 180 C	52	mg/L		10		A2540 C	06/16/11 11:20 / cmm	06/16/11 11:11-124 (14410200)_110616B : 28			12581
INORGANICS											
Alkalinity, Total as CaCO ₃	57	mg/L		4		A2320 B	06/16/11 16:53 / zeg		MAN-TECH_110617B : 63		R71916
Bicarbonate as HCO ₃	69	mg/L		4		A2320 B	06/16/11 16:53 / zeg		MAN-TECH_110617B : 63		R71916
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/16/11 16:53 / zeg		MAN-TECH_110617B : 63		R71916
Chloride	ND	mg/L		1		E300.0	06/18/11 18:53 / zeg		IC101-H_110618A : 39		R71954
Sulfate	2	mg/L		1		E300.0	06/18/11 18:53 / zeg		IC101-H_110618A : 39		R71954
Hardness as CaCO ₃	52	mg/L		1		A2340 B	06/23/11 07:56 / sld		WATERCALC_110623B : 11		R72092
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/22/11 01:33 / dck		ICPMS204-B_110620B : 282		R72000
Calcium	12	mg/L		1		E200.8	06/22/11 01:33 / dck		ICPMS204-B_110620B : 282		R72000
Magnesium	5	mg/L		1		E200.7	06/16/11 14:15 / sld		ICP2-HE_110616A : 50		R71921
Potassium	ND	mg/L		1		E200.7	06/16/11 14:15 / sld		ICP2-HE_110616A : 50		R71921
Sodium	2	mg/L		1		E200.7	06/16/11 14:15 / sld		ICP2-HE_110616A : 50		R71921
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	07/20/11 16:08 / eli-ca	07/21/11 15:04	SUB-C148348 : 10		C_30476
METALS, TOTAL RECOVERABLE											
Aluminum	0.08	mg/L		0.03		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Antimony	ND	mg/L		0.003		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Arsenic	ND	mg/L		0.003		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Barium	0.104	mg/L		0.005		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Beryllium	ND	mg/L		0.001		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Cadmium	ND	mg/L		0.00008		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Calcium	12	mg/L		1		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Chromium	ND	mg/L		0.001		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586

Report Definitions: RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11060300-003
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:10 **DateReceived:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Copper	0.002	mg/L		0.001	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Iron	0.11	mg/L		0.03	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Lead	ND	mg/L		0.0005	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Magnesium	5	mg/L		1	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Manganese	0.011	mg/L		0.005	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Nickel	ND	mg/L		0.01	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Potassium	ND	mg/L		1	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Selenium	ND	mg/L		0.001	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Silver	ND	mg/L		0.0005	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Sodium	2	mg/L		1	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Thallium	ND	mg/L		0.0002	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Vanadium	ND	mg/L		0.1	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586
Zinc	ND	mg/L		0.01	E200.8		06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		12586

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11060300-004
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:10 **DateReceived:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.		0.1		A4500-H B	06/16/11 17:07 / zeg		MAN-TECH_110617B : 68		R71916
Conductivity	111	umhos/cm		1		A2510 B	06/16/11 10:48 / cmm		COND_110616B : 3310616A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/16/11 11:25 / cmm	06/16/11 09:53-124 (14410200)_110616A : 34			12579
Solids, Total Dissolved TDS @ 180 C	76	mg/L		10		A2540 C	06/16/11 11:21 / cmm	06/16/11 11:11-124 (14410200)_110616B : 30			12581
INORGANICS											
Alkalinity, Total as CaCO ₃	58	mg/L		4		A2320 B	06/16/11 17:07 / zeg		MAN-TECH_110617B : 67		R71916
Bicarbonate as HCO ₃	70	mg/L		4		A2320 B	06/16/11 17:07 / zeg		MAN-TECH_110617B : 67		R71916
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/16/11 17:07 / zeg		MAN-TECH_110617B : 67		R71916
Chloride	ND	mg/L		1		E300.0	06/18/11 19:39 / zeg		IC101-H_110618A : 42		R71954
Sulfate	2	mg/L		1		E300.0	06/18/11 19:39 / zeg		IC101-H_110618A : 42		R71954
Hardness as CaCO ₃	51	mg/L		1		A2340 B	06/23/11 07:56 / sld		WATERCALC_110623B : 12		R72092
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/22/11 01:56 / dck		ICPMS204-B_110620B : 287		R72000
Calcium	12	mg/L		1		E200.8	06/22/11 01:56 / dck		ICPMS204-B_110620B : 287		R72000
Magnesium	5	mg/L		1		E200.7	06/16/11 14:25 / sld		ICP2-HE_110616A : 53		R71921
Potassium	ND	mg/L		1		E200.7	06/16/11 14:25 / sld		ICP2-HE_110616A : 53		R71921
Sodium	2	mg/L		1		E200.7	06/16/11 14:25 / sld		ICP2-HE_110616A : 53		R71921
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	07/20/11 16:10 / eli-ca	07/21/11 15:04	SUB-C148348 : 9		C_30476
METALS, TOTAL RECOVERABLE											
Aluminum	0.09	mg/L		0.03		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Antimony	ND	mg/L		0.003		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Arsenic	ND	mg/L		0.003		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Barium	0.101	mg/L		0.005		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Beryllium	ND	mg/L		0.001		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Cadmium	ND	mg/L		0.00008		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Calcium	12	mg/L		1		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Chromium	ND	mg/L		0.001		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW06

Lab ID: H11060300-004

Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 14:10

DateReceived: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Copper	0.002	mg/L		0.001	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Iron	0.11	mg/L		0.03	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Lead	ND	mg/L		0.0005	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Magnesium	5	mg/L		1	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Manganese	0.013	mg/L		0.005	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Nickel	ND	mg/L		0.01	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Potassium	ND	mg/L		1	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Selenium	ND	mg/L		0.001	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Silver	ND	mg/L		0.0005	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Sodium	2	mg/L		1	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Thallium	ND	mg/L		0.0002	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Vanadium	ND	mg/L		0.1	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Zinc	ND	mg/L		0.01	E200.8		06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11060300-005
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:50 **DateReceived:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1	A4500-H B	06/16/11 17:14 / zeg			MAN-TECH_110617B : 70		R71916
Conductivity	110	umhos/cm		1	A2510 B	06/16/11 10:49 / cmm			COND_110616B : 3410616A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	06/16/11 11:26 / cmm	06/16/11 09:53-124 (14410200)_110616A : 35				12579
Solids, Total Dissolved TDS @ 180 C	50	mg/L		10	A2540 C	06/16/11 11:21 / cmm	06/16/11 11:11-124 (14410200)_110616B : 32				12581
INORGANICS											
Alkalinity, Total as CaCO ₃	56	mg/L		4	A2320 B	06/16/11 17:14 / zeg			MAN-TECH_110617B : 69		R71916
Bicarbonate as HCO ₃	68	mg/L		4	A2320 B	06/16/11 17:14 / zeg			MAN-TECH_110617B : 69		R71916
Carbonate as CO ₃	ND	mg/L		4	A2320 B	06/16/11 17:14 / zeg			MAN-TECH_110617B : 69		R71916
Chloride	ND	mg/L		1	E300.0	06/18/11 19:55 / zeg			IC101-H_110618A : 43		R71954
Sulfate	2	mg/L		1	E300.0	06/18/11 19:55 / zeg			IC101-H_110618A : 43		R71954
Hardness as CaCO ₃	50	mg/L		1	A2340 B	06/23/11 07:56 / sld			WATERCALC_110623B : 13		R72092
METALS, DISSOLVED											
Aluminum	0.05	mg/L		0.03	E200.8	06/22/11 02:23 / dck			ICPMS204-B_110620B : 293		R72000
Calcium	11	mg/L		1	E200.8	06/22/11 02:23 / dck			ICPMS204-B_110620B : 293		R72000
Magnesium	5	mg/L		1	E200.7	06/16/11 14:29 / sld			ICP2-HE_110616A : 54		R71921
Potassium	ND	mg/L		1	E200.7	06/16/11 14:29 / sld			ICP2-HE_110616A : 54		R71921
Sodium	2	mg/L		1	E200.7	06/16/11 14:29 / sld			ICP2-HE_110616A : 54		R71921
METALS, TOTAL											
Mercury	ND	mg/L		0.00001	E245.1	07/20/11 16:11 / eli-ca	07/21/11 15:04		SUB-C148348 : 8		C_30476
METALS, TOTAL RECOVERABLE											
Aluminum	0.09	mg/L		0.03	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Antimony	ND	mg/L		0.003	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Arsenic	ND	mg/L		0.003	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Barium	0.103	mg/L		0.005	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Beryllium	ND	mg/L		0.001	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Cadmium	ND	mg/L		0.00008	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Calcium	12	mg/L		1	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586
Chromium	ND	mg/L		0.001	E200.8	06/22/11 02:27 / dck	06/16/11 13:31		ICPMS204-B_110620B : 294		12586

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW02

Lab ID: H11060300-005

Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 14:50

DateReceived: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Copper	0.003	mg/L		0.001	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Iron	0.08	mg/L		0.03	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Lead	ND	mg/L		0.0005	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Magnesium	5	mg/L		1	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Manganese	ND	mg/L		0.005	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Nickel	ND	mg/L		0.01	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Potassium	ND	mg/L		1	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Selenium	ND	mg/L		0.001	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Silver	ND	mg/L		0.0005	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Sodium	2	mg/L		1	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Thallium	ND	mg/L		0.0002	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Vanadium	ND	mg/L		0.1	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586
Zinc	ND	mg/L		0.01	E200.8		06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294		12586

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11060300-006
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 16:00 **DateReceived:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	06/16/11 17:20 / zeg		MAN-TECH_110617B : 72		R71916
Conductivity	123	umhos/cm		1		A2510 B	06/16/11 10:49 / cmm		COND_110616B : 3510616A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/16/11 11:26 / cmm	06/16/11 09:53-124 (14410200)_110616A : 36			12579
Solids, Total Dissolved TDS @ 180 C	80	mg/L		10		A2540 C	06/16/11 11:22 / cmm	06/16/11 11:11-124 (14410200)_110616B : 33			12581
INORGANICS											
Alkalinity, Total as CaCO ₃	58	mg/L		4		A2320 B	06/16/11 17:20 / zeg		MAN-TECH_110617B : 71		R71916
Bicarbonate as HCO ₃	71	mg/L		4		A2320 B	06/16/11 17:20 / zeg		MAN-TECH_110617B : 71		R71916
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/16/11 17:20 / zeg		MAN-TECH_110617B : 71		R71916
Chloride	ND	mg/L		1		E300.0	06/18/11 20:10 / zeg		IC101-H_110618A : 44		R71954
Sulfate	2	mg/L		1		E300.0	06/18/11 20:10 / zeg		IC101-H_110618A : 44		R71954
Hardness as CaCO ₃	52	mg/L		1		A2340 B	06/23/11 07:56 / sld		WATERCALC_110623B : 14		R72092
METALS, DISSOLVED											
Aluminum	0.08	mg/L		0.03		E200.8	06/22/11 02:32 / dck		ICPMS204-B_110620B : 295		R72000
Calcium	13	mg/L		1		E200.8	06/22/11 02:32 / dck		ICPMS204-B_110620B : 295		R72000
Magnesium	5	mg/L		1		E200.7	06/16/11 14:40 / sld		ICP2-HE_110616A : 57		R71921
Potassium	ND	mg/L		1		E200.7	06/16/11 14:40 / sld		ICP2-HE_110616A : 57		R71921
Sodium	2	mg/L		1		E200.7	06/16/11 14:40 / sld		ICP2-HE_110616A : 57		R71921
METALS, TOTAL RECOVERABLE											
Aluminum	0.15	mg/L		0.03		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Antimony	ND	mg/L		0.003		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Arsenic	ND	mg/L		0.003		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Barium	0.128	mg/L		0.005		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Beryllium	ND	mg/L		0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Cadmium	ND	mg/L		0.00008		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Calcium	13	mg/L		1		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Chromium	ND	mg/L		0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Cobalt	ND	mg/L		0.01		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Copper	0.002	mg/L		0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Iron	0.13	mg/L		0.03		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW05

Lab ID: H11060300-006

Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 16:00

DateReceived: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Magnesium	5	mg/L		1		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Manganese	0.008	mg/L		0.005		E200.8	06/23/11 09:20 / dck	06/16/11 13:31	ICPMS204-B_110622A : 134		12586
Mercury	0.00002	mg/L		0.00001		E245.1	06/24/11 13:15 / stp	06/20/11 10:51	HGCV201-H_110624A : 7		12617
Nickel	ND	mg/L		0.01		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Potassium	ND	mg/L		1		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Selenium	ND	mg/L		0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Silver	ND	mg/L		0.0005		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Sodium	2	mg/L		1		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Thallium	ND	mg/L		0.0002		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Vanadium	ND	mg/L		0.1		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586
Zinc	ND	mg/L		0.01		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		12586

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 110616A-COND-PROBE

Run ID :Run Order: COND_110616B: 6		SampType: Initial Calibration Verification Standard			Sample ID: ICV1_110616A			Method: A2510 B		
Analysis Date:	06/16/11 09:20	Units:	umhos/cm		Prep Info:	Prep Date:		Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	1020	1.0	1000	102	90	110			
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: COND_110616B: 30		SampType: Continuing Calibration Verification Standard			Sample ID: CCV6_110616A			Method: A2510 B		
Analysis Date:	06/16/11 10:46	Units:	umhos/cm		Prep Info:	Prep Date:		Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	1420	1.0	1412	101	90	110			
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Associated samples: **H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: COND_110616B: 32		SampType: Sample Duplicate			Sample ID: H11060300-003ADUP			Method: A2510 B		
Analysis Date:	06/16/11 10:47	Units:	umhos/cm		Prep Info:	Prep Date:		Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	117	1.0				116.5	0.4	10		
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: COND_110616B: 43		SampType: Sample Duplicate			Sample ID: H11060313-001ADUP			Method: A2510 B		
Analysis Date:	06/16/11 16:41	Units:	umhos/cm		Prep Info:	Prep Date:		Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	445	1.0				445.5	0.1	10		
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 110624WA

Run ID :Run Order: HGCV201-H_110624A: 1	SampType: Initial Calibration Verification Standard	Sample ID: ICV	Method: E245.1
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Analysis Date: 06/24/11 12:57	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00019	0.00010	0.0002		95	90	110			
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Associated samples: **H11060300-006C**

Run ID :Run Order: HGCV201-H_110624A: 3	SampType: Continuing Calibration Verification Standard	Sample ID: CCV	Method: E245.1
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Analysis Date: 06/24/11 13:02	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00020	0.00010	0.0002		99	90	110			
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Associated samples: **H11060300-006C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12579

Run ID :Run Order: ACCU-124 (14410200)_110616A: 25 SampType: Method Blank Sample ID: MB-12579 Method: A2540 D

Analysis Date: 06/16/11 10:22 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	1									
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Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: ACCU-124 (14410200)_110616A: 26 SampType: Laboratory Control Sample Sample ID: LCS-12579 Method: A2540 D

Analysis Date: 06/16/11 10:22 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	1770	10	2000		89	70	130				
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Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: ACCU-124 (14410200)_110616A: 28 SampType: Sample Duplicate Sample ID: H11060298-007ADUP Method: A2540 D

Analysis Date: 06/16/11 10:23 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	4.00	10				2					5
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Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: ACCU-124 (14410200)_110616A: 39 SampType: Sample Duplicate Sample ID: H11060306-002BDUP Method: A2540 D

Analysis Date: 06/16/11 13:47 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: A2540 D

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	6.00	10				10					5
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Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12580

Run ID :Run Order: ACCU-124 (14410200)_110616B: 1	SampType: Method Blank	Sample ID: MB-12580	Method: A2540 C
Analysis Date: 06/16/11 10:04	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
Analytes 1	Result PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	ND 3		
Associated samples: H11060300-001A; H11060300-002A			
Run ID :Run Order: ACCU-124 (14410200)_110616B: 2	SampType: Laboratory Control Sample	Sample ID: LCS-12580	Method: A2540 C
Analysis Date: 06/16/11 10:05	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
Analytes 1	Result PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	1990 10 2000	99 90 110	
Associated samples: H11060300-001A; H11060300-002A			
Run ID :Run Order: ACCU-124 (14410200)_110616B: 4	SampType: Sample Duplicate	Sample ID: H11060292-001ADUP	Method: A2540 C
Analysis Date: 06/16/11 10:06	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
Analytes 1	Result PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	ND 10	4	5
Associated samples: H11060300-001A; H11060300-002A			
Run ID :Run Order: ACCU-124 (14410200)_110616B: 6	SampType: Sample Matrix Spike	Sample ID: H11060292-002AMS	Method: A2540 C
Analysis Date: 06/16/11 10:06	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
Analytes 1	Result PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2030 10 2000	90 97 80 120	
Associated samples: H11060300-001A; H11060300-002A			
Run ID :Run Order: ACCU-124 (14410200)_110616B: 16	SampType: Sample Duplicate	Sample ID: H11060298-001ADUP	Method: A2540 C
Analysis Date: 06/16/11 10:10	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
Analytes 1	Result PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	88.0 10	80 9.5 5 R	
Associated samples: H11060300-001A; H11060300-002A			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12581

Run ID :Run Order: ACCU-124 (14410200)_110616B: 26	SampType: Method Blank	Sample ID: MB-12581	Method: A2540 C
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Analysis Date: 06/16/11 11:20	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	ND	3									
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Associated samples: **H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: ACCU-124 (14410200)_110616B: 27	SampType: Laboratory Control Sample	Sample ID: LCS-12581	Method: A2540 C
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Analysis Date: 06/16/11 11:20	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	1820	10	2000		91	90	110				
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Associated samples: **H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: ACCU-124 (14410200)_110616B: 29	SampType: Sample Duplicate	Sample ID: H11060300-003ADUP	Method: A2540 C
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Analysis Date: 06/16/11 11:20	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	54.0	10				52			3.8		5
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Associated samples: **H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: ACCU-124 (14410200)_110616B: 31	SampType: Sample Matrix Spike	Sample ID: H11060300-004AMS	Method: A2540 C
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Analysis Date: 06/16/11 11:21	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	2020	10	2000	76	97	80	120				
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Associated samples: **H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12586

Run ID :Run Order: ICPMS204-B_110620B: 18	SampType: Method Blank	Sample ID: MB-12586	Method: E200.8
Analysis Date: 06/20/11 17:25	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: E200.2
Analytes 22	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Aluminum	ND	0.0007	
Antimony	ND	4E-05	
Arsenic	ND	5E-05	
Barium	ND	9E-05	
Beryllium	ND	2E-05	
Cadmium	ND	2E-05	
Calcium	ND	0.04	
Chromium	ND	6E-05	
Cobalt	ND	3E-05	
Copper	ND	0.0004	
Iron	ND	0.0006	
Lead	ND	2E-05	
Magnesium	ND	0.003	
Manganese	0.0002	6E-05	
Nickel	ND	0.0002	
Potassium	ND	0.07	
Selenium	ND	0.0002	
Silver	ND	6E-05	
Sodium	ND	0.04	
Thallium	ND	2E-05	
Vanadium	ND	5E-05	
Zinc	ND	0.0003	

Associated samples: H11060300-003C; H11060300-004C; H11060300-005C; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 19	SampType: Laboratory Control Sample	Sample ID: LCS-12586	Method: E200.8
Analysis Date: 06/20/11 17:29	Units: mg/L	Prep Info: Prep Date: 6/16/2011	Prep Method: E200.2
Analytes 22	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Aluminum	2.38	0.10	2.5 95 85 115
Antimony	0.492	0.0050	0.5 98 85 115
Arsenic	0.492	0.0050	0.5 98 85 115
Barium	0.494	0.10	0.5 99 85 115
Beryllium	0.262	0.0010	0.25 105 85 115
Cadmium	0.253	0.0010	0.25 101 85 115

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12586

Run ID :Run Order: ICPMS204-B_110620B: 19 SampType: Laboratory Control Sample Sample ID: LCS-12586 Method: E200.8

Analysis Date: 06/20/11 17:29 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	25.4	1.0	25		102	85	115				
Chromium	0.484	0.010	0.5		97	85	115				
Cobalt	0.473	0.010	0.5		95	85	115				
Copper	0.483	0.010	0.5		97	85	115				
Iron	2.57	0.030	2.5		103	85	115				
Lead	0.486	0.010	0.5		97	85	115				
Magnesium	24.8	1.0	25		99	85	115				
Manganese	2.36	0.010	2.5	0.0002468	95	85	115				
Nickel	0.490	0.010	0.5		98	85	115				
Potassium	24.7	1.0	25		99	85	115				
Selenium	0.521	0.0050	0.5		104	85	115				
Silver	0.0498	0.0050	0.05		100	85	115				
Sodium	24.8	1.0	25		99	85	115				
Thallium	0.494	0.0050	0.5		99	85	115				
Vanadium	0.486	0.10	0.5		97	85	115				
Zinc	0.504	0.010	0.5		101	85	115				

Associated samples: H11060300-003C; H11060300-004C; H11060300-005C; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 246 SampType: Sample Matrix Spike Sample ID: H11060298-001CMS3 Method: E200.8

Analysis Date: 06/21/11 22:52 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.53	0.10	2.5	0.1924	94	70	130				
Antimony	0.485	0.0050	0.5	0.0000683	97	70	130				
Arsenic	0.498	0.0050	0.5	0.001071	99	70	130				
Barium	0.686	0.10	0.5	0.1927	99	70	130				
Beryllium	0.247	0.0010	0.25	0.0000947	99	70	130				
Cadmium	0.246	0.0010	0.25	0.003943	97	70	130				
Calcium	42.0	1.0	25	19.38	90	70	130				
Chromium	0.469	0.010	0.5	0.0001232	94	70	130				
Cobalt	0.478	0.010	0.5	0.0008945	95	70	130				
Copper	0.549	0.010	0.5	0.07686	94	70	130				
Iron	2.69	0.030	2.5	0.2199	99	70	130				
Lead	0.500	0.010	0.5	0.01217	98	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12586

Run ID :Run Order: ICPMS204-B_110620B: 246 SampType: Sample Matrix Spike Sample ID: H11060298-001CMS3 Method: E200.8

Analysis Date: 06/21/11 22:52 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	34.3	1.0	25	10.04	97	70	130				
Manganese	2.74	0.010	2.5	0.4485	92	70	130				
Nickel	0.489	0.010	0.5	0.003147	97	70	130				
Potassium	24.9	1.0	25	0.4487	98	70	130				
Selenium	0.505	0.0050	0.5		101	70	130				
Silver	0.0509	0.0050	0.05	0.0000984	102	70	130				
Sodium	24.8	1.0	25	0.9292	96	70	130				
Thallium	0.493	0.0050	0.5	0.0001862	99	70	130				
Vanadium	0.478	0.10	0.5	0.0003602	96	70	130				
Zinc	1.20	0.010	0.5	0.7364	92	70	130				

Associated samples: H11060300-003C; H11060300-004C; H11060300-005C; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 247 SampType: Sample Matrix Spike Duplicate Sample ID: H11060298-001CMS3 Method: E200.8

Analysis Date: 06/21/11 22:56 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.53	0.10	2.5	0.1924	93	70	130	2.534	0.3	20	
Antimony	0.486	0.0050	0.5	0.0000683	97	70	130	0.4849	0.3	20	
Arsenic	0.498	0.0050	0.5	0.001071	99	70	130	0.4978	0.1	20	
Barium	0.687	0.10	0.5	0.1927	99	70	130	0.6858	0.1	20	
Beryllium	0.251	0.0010	0.25	0.0000947	100	70	130	0.2474	1.3	20	
Cadmium	0.242	0.0010	0.25	0.003943	95	70	130	0.2461	1.8	20	
Calcium	41.5	1.0	25	19.38	89	70	130	41.98	1.1	20	
Chromium	0.469	0.010	0.5	0.0001232	94	70	130	0.4694	0.0	20	
Cobalt	0.480	0.010	0.5	0.0008945	96	70	130	0.4782	0.3	20	
Copper	0.544	0.010	0.5	0.07686	93	70	130	0.5488	0.8	20	
Iron	2.64	0.030	2.5	0.2199	97	70	130	2.692	1.9	20	
Lead	0.504	0.010	0.5	0.01217	98	70	130	0.4999	0.8	20	
Magnesium	33.7	1.0	25	10.04	94	70	130	34.31	1.9	20	
Manganese	2.75	0.010	2.5	0.4485	92	70	130	2.745	0.1	20	
Nickel	0.490	0.010	0.5	0.003147	97	70	130	0.489	0.3	20	
Potassium	24.7	1.0	25	0.4487	97	70	130	24.94	1.1	20	
Selenium	0.498	0.0050	0.5		100	70	130	0.5049	1.5	20	
Silver	0.0510	0.0050	0.05	0.0000984	102	70	130	0.05088	0.3	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12586

Run ID :Run Order: ICPMS204-B_110620B: 247 SampType: Sample Matrix Spike Duplicate Sample ID: H11060298-001CMSD3 Method: E200.8

Analysis Date: 06/21/11 22:56 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	24.9	1.0	25	0.9292	96	70	130	24.85	0.1	20	
Thallium	0.491	0.0050	0.5	0.0001862	98	70	130	0.4928	0.3	20	
Vanadium	0.484	0.10	0.5	0.0003602	97	70	130	0.4781	1.2	20	
Zinc	1.20	0.010	0.5	0.7364	93	70	130	1.196	0.5	20	

Associated samples: H11060300-003C; H11060300-004C; H11060300-005C; H11060300-006C

Run ID :Run Order: ICPMS204-B_110622A: 117 SampType: Method Blank Sample ID: MB-12586 Method: E200.8

Analysis Date: 06/23/11 08:03 Units: mg/L Prep Info: Prep Date: 6/16/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0007									
Antimony	ND	4E-05									
Arsenic	6E-05	5E-05									
Barium	0.0004	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	0.0002	6E-05									
Cobalt	ND	3E-05									
Copper	ND	0.0004									
Iron	0.003	0.0006									
Lead	2E-05	2E-05									
Magnesium	0.03	0.003									
Manganese	0.0003	6E-05									
Nickel	0.0003	0.0002									
Potassium	ND	0.07									
Silver	ND	6E-05									
Sodium	0.3	0.04									
Thallium	0.0001	2E-05									
Vanadium	0.0003	5E-05									
Zinc	0.002	0.0003									

Associated samples: H11060300-003C; H11060300-004C; H11060300-005C; H11060300-006C

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: 12617

Run ID :Run Order:	SampType: Method Blank				Sample ID: MB-12617				Method: E245.1		
HGCV201-H_110624A: 5											

Analysis Date:	06/24/11 13:10	Units:	mg/L		Prep Info:			Prep Date:	6/20/2011	Prep Method: E245.1		
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	1.0E-05	3E-06
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Associated samples: **H11060300-006C**

Run ID :Run Order:	SampType: Laboratory Control Sample				Sample ID: LCS-12617				Method: E245.1		
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Analysis Date:	06/24/11 13:12	Units:	mg/L		Prep Info:			Prep Date:	6/20/2011	Prep Method: E245.1		
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00019	0.00010	0.0002	97	85	115
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Associated samples: **H11060300-006C**

Run ID :Run Order:	SampType: Sample Matrix Spike				Sample ID: H11060305-003DMS				Method: E245.1		
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Analysis Date:	06/24/11 13:27	Units:	mg/L		Prep Info:			Prep Date:	6/20/2011	Prep Method: E245.1		
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00012	0.00010	0.0002	0.00001936	52	70	130	S
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Associated samples: **H11060300-006C**

Run ID :Run Order:	SampType: Sample Matrix Spike Duplicate				Sample ID: H11060305-003DMSD				Method: E245.1		
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Analysis Date:	06/24/11 13:29	Units:	mg/L		Prep Info:			Prep Date:	6/20/2011	Prep Method: E245.1		
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00015	0.00010	0.0002	0.00001936	64	70	130	0.0001227	18	30	S
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Associated samples: **H11060300-006C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: C_110720A

Run ID :Run Order: SUB-C148348: 7	SampType: Initial Calibration Verification Standard				Sample ID: ICV			Method: E245.1		
Analysis Date: 07/20/11 15:30	Units: mg/L				Prep Info: Prep Date:			Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit Qual
Mercury	0.0047	0.00020	0.005		93	90	110			

Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 26 of 59

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: C_30476

Run ID :Run Order: SUB-C148348: 1		SampType: Sample Matrix Spike Duplicate				Sample ID: H11060300-005C				Method: E245.1		
Analysis Date:	07/20/11 16:13	Units:	mg/L			Prep Info:	Prep Date:	7/21/2011		Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.0053	0.00010	0.005	107	85	115	0.004977	6.8	10
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Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Run ID :Run Order: SUB-C148348: 2		SampType: Sample Matrix Spike				Sample ID: H11060300-005C				Method: E245.1		
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Analysis Date:	07/20/11 16:12	Units:	mg/L			Prep Info:	Prep Date:	7/21/2011		Prep Method:	
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0050	0.00010	0.005	100	85	115					
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Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Run ID :Run Order: SUB-C148348: 3		SampType: Laboratory Control Sample				Sample ID: LCS-30476				Method: E245.1		
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Analysis Date:	07/20/11 16:07	Units:	mg/L			Prep Info:	Prep Date:	7/20/2011		Prep Method:	
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0047	0.00010	0.005	95	90	110					
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Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Run ID :Run Order: SUB-C148348: 4		SampType: Method Blank				Sample ID: MB-30476				Method: E245.1		
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Analysis Date:	07/20/11 16:05	Units:	mg/L			Prep Info:	Prep Date:	7/20/2011		Prep Method:	
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	ND	1E-06									
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Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: C_R148348

Run ID :Run Order: SUB-C148348: 5	SampType: Continuing Calibration Verification Standard	Sample ID: CCV1	Method: E245.1
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Analysis Date: 07/20/11 15:33	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0052	0.00020	0.005		105	95	105			
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Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Run ID :Run Order: SUB-C148348: 6	SampType: Initial Calibration Blank, Instrument Blank	Sample ID: ICB	Method: E245.1
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Analysis Date: 07/20/11 15:31	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	6.1E-05	0.00020			0	0				
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Associated samples: **H11060300-003C; H11060300-004C; H11060300-005C**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: Section 35 Baseline

BatchID: R71916

Date: 25-Jul-11

Run ID :Run Order: MAN-TECH_110617B: 8	SampType: Method Blank				Sample ID: MBLK				Method: A2320 B		
Analysis Date: 06/16/11 13:56	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1	0.6									

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: MAN-TECH_110617B: 10	SampType: Laboratory Control Sample				Sample ID: LCS-06022011				Method: A2320 B		
Analysis Date: 06/16/11 14:04	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	610	4.0	600	1.48	102	90	110				

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: MAN-TECH_110617B: 14	SampType: Sample Duplicate				Sample ID: H11060292-001ADUP				Method: A2320 B		
Analysis Date: 06/16/11 14:13	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	1.3	4.0							1.37	20	
Bicarbonate as HCO3	1.5	4.0							1.67	20	
Carbonate as CO3	ND	4.0								20	

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: MAN-TECH_110617B: 28	SampType: Sample Matrix Spike				Sample ID: H11060292-007AMS				Method: A2320 B		
Analysis Date: 06/16/11 15:02	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	670	4.0	600	71.63	100	90	110				

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: MAN-TECH_110617B: 38	SampType: Sample Duplicate				Sample ID: H11060298-001ADUP				Method: A2320 B		
Analysis Date: 06/16/11 15:36	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO3	74	4.0							73.6	0.2	20
Bicarbonate as HCO3	90	4.0							89.8	0.2	20
Carbonate as CO3	ND	4.0								20	

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71916

Run ID :Run Order: **MAN-TECH_110617B: 38** SampType: Sample Duplicate Sample ID: **H11060298-001ADUP** Method: **A2320 B**

Analysis Date: **06/16/11 15:36** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3											

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 59** SampType: Method Blank Sample ID: **MBLK** Method: **A2320 B**

Analysis Date: **06/16/11 16:38** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1											

Alkalinity, Total as CaCO₃ 1.3 4.0

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 61** SampType: Laboratory Control Sample Sample ID: **LCS-06022011** Method: **A2320 B**

Analysis Date: **06/16/11 16:47** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1											

Alkalinity, Total as CaCO₃ 610 4.0 600 1.33 **102** 90 110

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 65** SampType: Sample Duplicate Sample ID: **H11060300-003ADUP** Method: **A2320 B**

Analysis Date: **06/16/11 17:00** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3											

Alkalinity, Total as CaCO₃ 57 4.0 56.74 **0.2** 20

Bicarbonate as HCO₃ 69 4.0 69.22 **0.2** 20

Carbonate as CO₃ ND 4.0 20

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 84** SampType: Sample Matrix Spike Sample ID: **H11060304-004AMS** Method: **A2320 B**

Analysis Date: **06/16/11 18:27** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1											

Alkalinity, Total as CaCO₃ 1100 4.0 600 592.7 **91** 90 110

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71916

Run ID :Run Order: **MAN-TECH_110617B: 2** SampType: Continuing Calibration Verification Standard Sample ID: CCV1-1905 Method: A4500-H B

Analysis Date: 06/16/11 13:38 Units: s.u. Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	3.94	0.10	4		99	98	102				
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 3** SampType: Continuing Calibration Verification Standard Sample ID: CCV-1943 Method: A4500-H B

Analysis Date: 06/16/11 13:41 Units: s.u. Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	6.94	0.10	7		99	98	102				
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Associated samples: **H11060300-001A; H11060300-002A**

Run ID :Run Order: **MAN-TECH_110617B: 4** SampType: Continuing Calibration Verification Standard Sample ID: CCV2-2042 Method: A4500-H B

Analysis Date: 06/16/11 13:44 Units: s.u. Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	9.97	0.10	10		100	98	102				
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 5** SampType: Initial Calibration Verification Standard Sample ID: ICV-1942 Method: A4500-H B

Analysis Date: 06/16/11 13:46 Units: s.u. Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	6.95	0.10	7		99	99	101				
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: **MAN-TECH_110617B: 58** SampType: Continuing Calibration Verification Standard Sample ID: CCV-1943 Method: A4500-H B

Analysis Date: 06/16/11 16:33 Units: s.u. Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	6.97	0.10	7		100	98	102				
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Associated samples: **H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71916

Run ID :Run Order: MAN-TECH_110617B: 66	SampType: Sample Duplicate	Sample ID: H11060300-003ADUP	Method: A4500-H B
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Analysis Date: 06/16/11 17:00	Units: s.u.	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.03	0.10						8	0.4		3

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: MAN-TECH_110617B: 88	SampType: Sample Duplicate	Sample ID: H11060304-005ADUP	Method: A4500-H B
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Analysis Date: 06/16/11 18:42	Units: s.u.	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.76	0.10						7.75	0.1		3

Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71921

Run ID :Run Order: ICP2-HE_110616A: 6 SampType: Initial Calibration Verification Standard Sample ID: ICV Method: E200.7

Analysis Date: 06/16/11 11:33 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	39.1	1.0	40		98	95	105				
Potassium	38.5	1.0	40		96	95	105				
Sodium	38.2	1.0	40		95	95	105				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICP2-HE_110616A: 7 SampType: Continuing Calibration Verification Standard Sample ID: CCV-1 Method: E200.7

Analysis Date: 06/16/11 11:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	25.4	1.0	25		102	95	105				
Potassium	24.6	1.0	25		98	95	105				
Sodium	24.8	1.0	25		99	95	105				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICP2-HE_110616A: 10 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.7

Analysis Date: 06/16/11 11:47 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	497	1.0	500		99	80	120				
Potassium	0.0206	1.0				0	0				
Sodium	0.0376	1.0				0	0				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICP2-HE_110616A: 11 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.7

Analysis Date: 06/16/11 11:52 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	506	1.0	500		101	80	120				
Potassium	20.0	1.0	20		100	80	120				
Sodium	20.0	1.0	20		100	80	120				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71921

Run ID :Run Order: ICP2-HE_110616A: 13 SampType: Method Blank Sample ID: ICB Method: E200.7

Analysis Date: 06/16/11 11:59 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	0.1	0.01									
Potassium	ND	0.04									
Sodium	ND	0.01									

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICP2-HE_110616A: 14 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.7

Analysis Date: 06/16/11 12:03 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	47.0	1.0	50	0.1124	94	85	115				
Potassium	46.0	1.0	50		92	85	115				
Sodium	45.8	1.0	50		92	85	115				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICP2-HE_110616A: 43 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E200.7

Analysis Date: 06/16/11 13:49 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	26.4	1.0	25		106	90	110				
Potassium	24.0	1.0	25		96	90	110				
Sodium	24.4	1.0	25		98	90	110				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B

Run ID :Run Order: ICP2-HE_110616A: 51 SampType: Sample Matrix Spike Sample ID: H11060300-003BMS2 Method: E200.7

Analysis Date: 06/16/11 14:18 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	52.3	1.0	50	5.156	94	70	130				
Potassium	46.9	1.0	50	0.4365	93	70	130				
Sodium	48.9	1.0	50	1.677	94	70	130				

Associated samples: H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71921

Run ID :Run Order: ICP2-HE_110616A: 52 SampType: Sample Matrix Spike Duplicate Sample ID: H11060300-003BMSD2 Method: E200.7

Analysis Date: 06/16/11 14:22 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	53.1	1.0	50	5.156	96	70	130	52.27	1.5	20	
Potassium	47.7	1.0	50	0.4365	95	70	130	46.95	1.6	20	
Sodium	49.6	1.0	50	1.677	96	70	130	48.88	1.4	20	

Associated samples: **H11060300-001B; H11060300-002B; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B**

Run ID :Run Order: ICP2-HE_110616A: 55 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E200.7

Analysis Date: 06/16/11 14:33 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	25.1	1.0	25		101	90	110				
Potassium	24.2	1.0	25		97	90	110				
Sodium	24.9	1.0	25		99	90	110				

Associated samples: **H11060300-006B**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71954

Run ID :Run Order: IC101-H_110618A: 14 SampType: Initial Calibration Verification Standard Sample ID: ICV061711-12 Method: E300.0

Analysis Date: 06/18/11 12:27 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	100	1.0	100		103	90	110				
Sulfate	410	1.0	400		103	90	110				

Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: IC101-H_110618A: 15 SampType: Method Blank Sample ID: ICB061711-13 Method: E300.0

Analysis Date: 06/18/11 12:43 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	ND	0.2									
Sulfate	ND	0.5									

Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: IC101-H_110618A: 16 SampType: Laboratory Fortified Blank Sample ID: LFB061711-14 Method: E300.0

Analysis Date: 06/18/11 12:58 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	55	1.0	50		109	90	110				
Sulfate	200	1.1	200		100	90	110				

Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: IC101-H_110618A: 31 SampType: Continuing Calibration Verification Standard Sample ID: CCV061711-58 Method: E300.0

Analysis Date: 06/18/11 16:50 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	99	1.0	100		99	90	110				
Sulfate	400	1.0	400		100	90	110				

Associated samples: H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A

Run ID :Run Order: IC101-H_110618A: 40 SampType: Sample Matrix Spike Sample ID: H11060300-003AMS Method: E300.0

Analysis Date: 06/18/11 19:08 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	49	1.0	50		98	90	110				
Sulfate	200	1.1	200	1.604	100	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R71954

Run ID :Run Order: IC101-H_110618A: 40	SampType: Sample Matrix Spike	Sample ID: H11060300-003AMS	Method: E300.0
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Analysis Date: 06/18/11 19:08	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Run ID :Run Order: IC101-H_110618A: 41	SampType: Sample Matrix Spike Duplicate	Sample ID: H11060300-003AMSD	Method: E300.0
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Analysis Date: 06/18/11 19:24	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	49	1.0	50		99	90	110	48.91	0.9	20
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Sulfate	200	1.1	200	1.604	101	90	110	202	1.0	20
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Associated samples: **H11060300-001A; H11060300-002A; H11060300-003A; H11060300-004A; H11060300-005A; H11060300-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 7 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 06/20/11 16:35 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.247	0.10	0.25		99	90	110				
Antimony	0.0502	0.050	0.05		100	90	110				
Arsenic	0.0499	0.0050	0.05		100	90	110				
Barium	0.0501	0.10	0.05		100	90	110				
Beryllium	0.0252	0.0010	0.025		101	90	110				
Cadmium	0.0264	0.0010	0.025		106	90	110				
Calcium	2.55	0.50	2.5		102	90	110				
Chromium	0.0493	0.010	0.05		99	90	110				
Cobalt	0.0521	0.010	0.05		104	90	110				
Copper	0.0512	0.010	0.05		102	90	110				
Iron	0.265	0.030	0.25		106	90	110				
Lead	0.0506	0.010	0.05		101	90	110				
Magnesium	2.54	0.50	2.5		102	90	110				
Manganese	0.247	0.010	0.25		99	90	110				
Mercury	0.00204	0.0010	0.002		102	90	110				
Nickel	0.0506	0.010	0.05		101	90	110				
Potassium	2.56	0.50	2.5		102	90	110				
Selenium	0.0517	0.0050	0.05		103	90	110				
Silver	0.0256	0.0050	0.025		103	90	110				
Sodium	2.52	0.50	2.5		101	90	110				
Thallium	0.0501	0.10	0.05		100	90	110				
Vanadium	0.0493	0.10	0.05		99	90	110				
Zinc	0.0511	0.010	0.05		102	90	110				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 8 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/20/11 16:40 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.3	0.10	40		98	70	130				
Antimony	0.000311	0.050									
Arsenic	0.000158	0.0050									
Barium	0.000237	0.10									
Beryllium	4.10E-05	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 8 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/20/11 16:40 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000686	0.0010									
Calcium	116	0.50	120		97	70	130				
Chromium	0.00208	0.010									
Cobalt	0.00175	0.010									
Copper	0.000226	0.010									
Iron	104	0.030	100		104	70	130				
Lead	0.000107	0.010									
Magnesium	41.4	0.50	40		104	70	130				
Manganese	0.00199	0.010									
Mercury	4.80E-05	0.0010									
Nickel	0.00124	0.010									
Potassium	40.6	0.50	40		102	70	130				
Selenium	0.000198	0.0050									
Silver	0.000611	0.0050									
Sodium	103	0.50	100		103	70	130				
Thallium	0.000107	0.10									
Vanadium	0.000170	0.10									
Zinc	0.00116	0.010									

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 9 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/20/11 16:45 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.1	0.10	40		98	70	130				
Antimony	0.000294	0.050				0	0				
Arsenic	0.0102	0.0050	0.01		102	70	130				
Barium	0.000218	0.10				0	0				
Beryllium	3.10E-05	0.0010				0	0				
Cadmium	0.0106	0.0010	0.01		106	70	130				
Calcium	113	0.50	120		94	70	130				
Chromium	0.0217	0.010	0.02		109	70	130				
Cobalt	0.0222	0.010	0.02		111	70	130				
Copper	0.0199	0.010	0.02		100	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 9 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/20/11 16:45 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	102	0.030	100		102	70	130				
Lead	7.00E-05	0.010				0	0				
Magnesium	42.0	0.50	40		105	70	130				
Manganese	0.0220	0.010	0.02		110	70	130				
Mercury	2.90E-05	0.0010				0	0				
Nickel	0.0213	0.010	0.02		106	70	130				
Potassium	39.5	0.50	40		99	70	130				
Selenium	0.0104	0.0050	0.01		104	70	130				
Silver	0.0198	0.0050	0.02		99	70	130				
Sodium	105	0.50	100		105	70	130				
Thallium	6.80E-05	0.10				0	0				
Vanadium	0.0203	0.10	0.02		101	70	130				
Zinc	0.0110	0.010	0.01		110	70	130				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 15 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 06/20/11 17:12 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0004	0.0003									
Antimony	ND	7E-06									
Arsenic	ND	3E-05									
Barium	ND	3E-05									
Beryllium	3E-05	2E-05									
Cadmium	ND	1E-05									
Calcium	0.006	0.003									
Chromium	ND	6E-05									
Cobalt	ND	9E-06									
Copper	ND	3E-05									
Iron	0.002	0.0002									
Lead	ND	1.0E-05									
Magnesium	ND	0.0007									
Manganese	ND	1E-05									
Mercury	ND	9E-06									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 15 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 06/20/11 17:12 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	5E-05									
Potassium	ND	0.010									
Selenium	ND	4E-05									
Silver	0.0002	3E-05									
Sodium	ND	0.003									
Thallium	ND	7E-06									
Vanadium	ND	1E-05									
Zinc	0.0004	0.0003									

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICPMS204-B_110620B: 16 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 06/20/11 17:16 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0487	0.10	0.05	0.0003893	97	85	115				
Antimony	0.0484	0.050	0.05		97	85	115				
Arsenic	0.0480	0.0050	0.05		96	85	115				
Barium	0.0479	0.10	0.05		96	85	115				
Beryllium	0.0487	0.0010	0.05	0.0000277	97	85	115				
Cadmium	0.0477	0.0010	0.05		95	85	115				
Calcium	45.3	0.50	50	0.005609	91	85	115				
Chromium	0.0485	0.010	0.05		97	85	115				
Cobalt	0.0481	0.010	0.05		96	85	115				
Copper	0.0499	0.010	0.05		100	85	115				
Iron	4.84	0.030	5	0.002025	97	85	115				
Lead	0.0491	0.010	0.05		98	85	115				
Magnesium	46.9	0.50	50		94	85	115				
Manganese	0.0484	0.010	0.05		97	85	115				
Mercury	0.00101	0.0010	0.001		101	85	115				
Nickel	0.0474	0.010	0.05		95	85	115				
Potassium	47.5	0.50	50		95	85	115				
Selenium	0.0486	0.0050	0.05		97	85	115				
Silver	0.0182	0.0050	0.02	0.0002267	90	85	115				
Sodium	47.8	0.50	50		96	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 16 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 06/20/11 17:16 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0500	0.10	0.05		100	85	115				
Vanadium	0.0479	0.10	0.05		96	85	115				
Zinc	0.0502	0.010	0.05	0.0003934	100	85	115				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICPMS204-B_110620B: 36 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 06/20/11 19:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.251	0.10	0.25		100	90	110				
Antimony	0.0510	0.050	0.05		102	90	110				
Arsenic	0.0492	0.0050	0.05		99	90	110				
Barium	0.0511	0.10	0.05		102	90	110				
Beryllium	0.0254	0.0010	0.025		101	90	110				
Cadmium	0.0264	0.0010	0.025		106	90	110				
Calcium	2.54	0.50	2.5		102	90	110				
Chromium	0.0495	0.010	0.05		99	90	110				
Cobalt	0.0533	0.010	0.05		107	90	110				
Copper	0.0512	0.010	0.05		102	90	110				
Iron	0.261	0.030	0.25		104	90	110				
Lead	0.0512	0.010	0.05		102	90	110				
Magnesium	2.58	0.50	2.5		103	90	110				
Manganese	0.250	0.010	0.25		100	90	110				
Mercury	0.00200	0.0010	0.002		100	90	110				
Nickel	0.0506	0.010	0.05		101	90	110				
Potassium	2.53	0.50	2.5		101	90	110				
Selenium	0.0506	0.0050	0.05		101	90	110				
Silver	0.0255	0.0050	0.025		102	90	110				
Sodium	2.52	0.50	2.5		101	90	110				
Thallium	0.0510	0.10	0.05		102	90	110				
Vanadium	0.0498	0.10	0.05		100	90	110				
Zinc	0.0504	0.010	0.05		101	90	110				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C; H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT
Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 37 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/20/11 19:35 Units: mg/L Prep Info: Prep Date: Prep Method:

Analyses	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.3	0.10	40		98	70	130				
Antimony	0.000328	0.050									
Arsenic	0.000194	0.0050									
Barium	0.000225	0.10									
Beryllium	3.50E-05	0.0010									
Cadmium	0.000561	0.0010									
Calcium	115	0.50	120		96	70	130				
Chromium	0.00207	0.010									
Cobalt	0.00178	0.010									
Copper	0.000395	0.010									
Iron	101	0.030	100		101	70	130				
Lead	0.000105	0.010									
Magnesium	41.8	0.50	40		105	70	130				
Manganese	0.00202	0.010									
Mercury	5.80E-05	0.0010									
Nickel	0.00134	0.010									
Potassium	40.2	0.50	40		101	70	130				
Selenium	0.000195	0.0050									
Silver	0.000430	0.0050									
Sodium	104	0.50	100		104	70	130				
Thallium	0.000101	0.10									
Vanadium	0.000195	0.10									
Zinc	0.00117	0.010									

 Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
 H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 38 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/20/11 19:39 Units: mg/L Prep Info: Prep Date: Prep Method:

Analyses	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.7	0.10	40		99	70	130				
Antimony	0.000312	0.050				0	0				
Arsenic	0.0106	0.0050	0.01		106	70	130				
Barium	0.000205	0.10				0	0				
Beryllium	2.80E-05	0.0010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

 N - Analyte concentration was not sufficiently high to calculate RPD
 A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 38 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/20/11 19:39 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0105	0.0010	0.01		105	70	130				
Calcium	114	0.50	120		95	70	130				
Chromium	0.0220	0.010	0.02		110	70	130				
Cobalt	0.0227	0.010	0.02		114	70	130				
Copper	0.0200	0.010	0.02		100	70	130				
Iron	101	0.030	100		101	70	130				
Lead	7.00E-05	0.010				0	0				
Magnesium	42.5	0.50	40		106	70	130				
Manganese	0.0223	0.010	0.02		112	70	130				
Mercury	2.40E-05	0.0010				0	0				
Nickel	0.0214	0.010	0.02		107	70	130				
Potassium	39.4	0.50	40		99	70	130				
Selenium	0.0105	0.0050	0.01		105	70	130				
Silver	0.0200	0.0050	0.02		100	70	130				
Sodium	106	0.50	100		106	70	130				
Thallium	7.70E-05	0.10				0	0				
Vanadium	0.0206	0.10	0.02		103	70	130				
Zinc	0.0113	0.010	0.01		113	70	130				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 208 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/21/11 09:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.4	0.10	40		96	70	130				
Antimony	0.000294	0.050									
Arsenic	0.000150	0.0050									
Barium	0.000231	0.10									
Beryllium	3.10E-05	0.0010									
Cadmium	0.000507	0.0010									
Calcium	108	0.50	120		90	70	130				
Chromium	0.00194	0.010									
Cobalt	0.00179	0.010									
Copper	0.000383	0.010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 208 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/21/11 09:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.4	0.030	100		99	70	130				
Lead	8.50E-05	0.010									
Magnesium	39.5	0.50	40		99	70	130				
Manganese	0.00194	0.010									
Mercury	2.00E-05	0.0010									
Nickel	0.00126	0.010									
Potassium	37.5	0.50	40		94	70	130				
Selenium	8.50E-05	0.0050									
Silver	0.000111	0.0050									
Sodium	98.8	0.50	100		99	70	130				
Thallium	0.000490	0.10									
Vanadium	0.000192	0.10									
Zinc	0.00113	0.010									

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 209 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/21/11 09:24 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.4	0.10	40		96	70	130				
Antimony	0.000306	0.050				0	0				
Arsenic	0.0106	0.0050	0.01		106	70	130				
Barium	0.000212	0.10				0	0				
Beryllium	3.30E-05	0.0010				0	0				
Cadmium	0.0102	0.0010	0.01		102	70	130				
Calcium	110	0.50	120		91	70	130				
Chromium	0.0218	0.010	0.02		109	70	130				
Cobalt	0.0228	0.010	0.02		114	70	130				
Copper	0.0206	0.010	0.02		103	70	130				
Iron	101	0.030	100		101	70	130				
Lead	6.60E-05	0.010				0	0				
Magnesium	41.1	0.50	40		103	70	130				
Manganese	0.0220	0.010	0.02		110	70	130				
Mercury	1.40E-05	0.0010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 209 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/21/11 09:24 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0216	0.010	0.02		108	70	130				
Potassium	38.1	0.50	40		95	70	130				
Selenium	0.0102	0.0050	0.01		102	70	130				
Silver	0.0196	0.0050	0.02		98	70	130				
Sodium	104	0.50	100		104	70	130				
Thallium	0.000392	0.10				0	0				
Vanadium	0.0205	0.10	0.02		103	70	130				
Zinc	0.0108	0.010	0.01		108	70	130				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 215 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 06/21/11 13:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.253	0.10	0.25		101	90	110				
Antimony	0.0510	0.050	0.05		102	90	110				
Arsenic	0.0492	0.0050	0.05		98	90	110				
Barium	0.0506	0.10	0.05		101	90	110				
Beryllium	0.0256	0.0010	0.025		102	90	110				
Cadmium	0.0268	0.0010	0.025		107	90	110				
Calcium	2.54	0.50	2.5		102	90	110				
Chromium	0.0491	0.010	0.05		98	90	110				
Cobalt	0.0530	0.010	0.05		106	90	110				
Copper	0.0512	0.010	0.05		102	90	110				
Iron	0.263	0.030	0.25		105	90	110				
Lead	0.0522	0.010	0.05		104	90	110				
Magnesium	2.53	0.50	2.5		101	90	110				
Manganese	0.251	0.010	0.25		100	90	110				
Mercury	0.00205	0.0010	0.002		102	90	110				
Nickel	0.0500	0.010	0.05		100	90	110				
Potassium	2.49	0.50	2.5		100	90	110				
Selenium	0.0508	0.0050	0.05		102	90	110				
Silver	0.0254	0.0050	0.025		102	90	110				
Sodium	2.52	0.50	2.5		101	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 215 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 06/21/11 13:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0518	0.10	0.05		104	90	110				
Vanadium	0.0489	0.10	0.05		98	90	110				
Zinc	0.0509	0.010	0.05		102	90	110				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 216 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/21/11 13:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.2	0.10	40		98	70	130				
Antimony	0.000319	0.050									
Arsenic	0.000175	0.0050									
Barium	0.000216	0.10									
Beryllium	6.70E-05	0.0010									
Cadmium	0.000519	0.0010									
Calcium	113	0.50	120		94	70	130				
Chromium	0.00210	0.010									
Cobalt	0.00180	0.010									
Copper	0.000433	0.010									
Iron	99.4	0.030	100		99	70	130				
Lead	0.000100	0.010									
Magnesium	40.8	0.50	40		102	70	130				
Manganese	0.00211	0.010									
Mercury	7.40E-05	0.0010									
Nickel	0.00136	0.010									
Potassium	39.7	0.50	40		99	70	130				
Selenium	0.000186	0.0050									
Silver	0.000387	0.0050									
Sodium	102	0.50	100		102	70	130				
Thallium	0.000488	0.10									
Vanadium	0.000207	0.10									
Zinc	0.00112	0.010									

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 217 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/21/11 13:41 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.0	0.10	40		97	70	130				
Antimony	0.000317	0.050				0	0				
Arsenic	0.0102	0.0050	0.01		102	70	130				
Barium	0.000202	0.10				0	0				
Beryllium	5.30E-05	0.0010				0	0				
Cadmium	0.0103	0.0010	0.01		103	70	130				
Calcium	113	0.50	120		95	70	130				
Chromium	0.0217	0.010	0.02		108	70	130				
Cobalt	0.0228	0.010	0.02		114	70	130				
Copper	0.0201	0.010	0.02		101	70	130				
Iron	97.8	0.030	100		98	70	130				
Lead	6.80E-05	0.010				0	0				
Magnesium	40.8	0.50	40		102	70	130				
Manganese	0.0222	0.010	0.02		111	70	130				
Mercury	3.50E-05	0.0010				0	0				
Nickel	0.0212	0.010	0.02		106	70	130				
Potassium	39.6	0.50	40		99	70	130				
Selenium	0.00997	0.0050	0.01		100	70	130				
Silver	0.0195	0.0050	0.02		97	70	130				
Sodium	102	0.50	100		102	70	130				
Thallium	0.000307	0.10				0	0				
Vanadium	0.0204	0.10	0.02		102	70	130				
Zinc	0.0111	0.010	0.01		111	70	130				

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 283 SampType: Sample Matrix Spike Sample ID: H11060300-003BMS Method: E200.8

Analysis Date: 06/22/11 01:38 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0704	0.10	0.05	0.02604	89	70	130				
Antimony	0.0479	0.0050	0.05	0.0000618	96	70	130				
Arsenic	0.0481	0.0050	0.05	0.0003925	95	70	130				
Barium	0.144	0.10	0.05	0.09766	92	70	130				
Beryllium	0.0474	0.0010	0.05	0.000026	95	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 283 SampType: Sample Matrix Spike Sample ID: H11060300-003BMS Method: E200.8

Analysis Date: 06/22/11 01:38 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0464	0.0010	0.05		93	70	130				
Calcium	54.5	1.0	50	12.3	84	70	130				
Chromium	0.0482	0.010	0.05		96	70	130				
Cobalt	0.0490	0.010	0.05	0.0001189	98	70	130				
Copper	0.0516	0.010	0.05	0.001553	100	70	130				
Iron	4.74	0.030	5	0.04147	94	70	130				
Lead	0.0501	0.010	0.05	0.0000539	100	70	130				
Magnesium	51.1	1.0	50	5.214	92	70	130				
Manganese	0.0525	0.010	0.05	0.004146	97	70	130				
Mercury	0.000990	0.0010	0.001		99	70	130				
Nickel	0.0474	0.010	0.05	0.0004086	94	70	130				
Potassium	47.1	1.0	50	0.4452	93	70	130				
Selenium	0.0491	0.0050	0.05	0.0000445	98	70	130				
Silver	0.0186	0.0050	0.02		93	70	130				
Sodium	49.0	1.0	50	1.71	95	70	130				
Thallium	0.0506	0.0050	0.05		101	70	130				
Vanadium	0.0477	0.10	0.05	0.0003409	95	70	130				
Zinc	0.0511	0.010	0.05	0.001646	99	70	130				

Associated samples: **H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B**

Run ID :Run Order: ICPMS204-B_110620B: 284 SampType: Sample Matrix Spike Duplicate Sample ID: H11060300-003BMSD Method: E200.8

Analysis Date: 06/22/11 01:42 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0704	0.10	0.05	0.02604	89	70	130	0.07038		20	
Antimony	0.0472	0.0050	0.05	0.0000618	94	70	130	0.0479	1.4	20	
Arsenic	0.0469	0.0050	0.05	0.0003925	93	70	130	0.04812	2.5	20	
Barium	0.141	0.10	0.05	0.09766	86	70	130	0.1437	2.1	20	
Beryllium	0.0466	0.0010	0.05	0.000026	93	70	130	0.04737	1.6	20	
Cadmium	0.0455	0.0010	0.05		91	70	130	0.04642	2.0	20	
Calcium	53.1	1.0	50	12.3	82	70	130	54.48	2.5	20	
Chromium	0.0467	0.010	0.05		93	70	130	0.04818	3.1	20	
Cobalt	0.0485	0.010	0.05	0.0001189	97	70	130	0.04903	1.1	20	
Copper	0.0505	0.010	0.05	0.001553	98	70	130	0.05163	2.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 284 SampType: Sample Matrix Spike Duplicate Sample ID: H11060300-003BMSD Method: E200.8

Analysis Date: 06/22/11 01:42

Units: mg/L

Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4.63	0.030	5	0.04147	92	70	130	4.742	2.3	20	
Lead	0.0496	0.010	0.05	0.0000539	99	70	130	0.05009	0.9	20	
Magnesium	50.1	1.0	50	5.214	90	70	130	51.08	1.9	20	
Manganese	0.0516	0.010	0.05	0.004146	95	70	130	0.05253	1.7	20	
Mercury	0.00100	0.0010	0.001		100	70	130	0.00099		20	
Nickel	0.0458	0.010	0.05	0.0004086	91	70	130	0.04745	3.5	20	
Potassium	45.5	1.0	50	0.4452	90	70	130	47.07	3.4	20	
Selenium	0.0475	0.0050	0.05	0.0000445	95	70	130	0.04907	3.2	20	
Silver	0.0187	0.0050	0.02		94	70	130	0.01865	0.4	20	
Sodium	47.5	1.0	50	1.71	92	70	130	49	3.2	20	
Thallium	0.0507	0.0050	0.05		101	70	130	0.05059	0.3	20	
Vanadium	0.0465	0.10	0.05	0.0003409	92	70	130	0.04773		20	
Zinc	0.0489	0.010	0.05	0.001646	95	70	130	0.05106	4.2	20	

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-004B; H11060300-005B; H11060300-006B

Run ID :Run Order: ICPMS204-B_110620B: 409 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/22/11 11:23

Units: mg/L

Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.1	0.10	40		95	70	130				
Antimony	0.000301	0.050									
Arsenic	0.000208	0.0050									
Barium	0.000241	0.10									
Beryllium	2.90E-05	0.0010									
Cadmium	0.000449	0.0010									
Calcium	109	0.50	120		91	70	130				
Chromium	0.00192	0.010									
Cobalt	0.00177	0.010									
Copper	0.000419	0.010									
Iron	97.1	0.030	100		97	70	130				
Lead	8.30E-05	0.010									
Magnesium	39.0	0.50	40		98	70	130				
Manganese	0.00228	0.010									
Mercury	2.00E-05	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 409 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 06/22/11 11:23 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.00168	0.010									
Potassium	39.0	0.50	40		98	70	130				
Selenium	0.000287	0.0050									
Silver	0.000107	0.0050									
Sodium	98.8	0.50	100		99	70	130				
Thallium	4.30E-05	0.10									
Vanadium	0.000179	0.10									
Zinc	0.00113	0.010									

Associated samples: H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C; H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Run ID :Run Order: ICPMS204-B_110620B: 410 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 06/22/11 11:28 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.3	0.10	40		96	70	130				
Antimony	0.000304	0.050				0	0				
Arsenic	0.0108	0.0050	0.01		107	70	130				
Barium	0.000208	0.10				0	0				
Beryllium	1.50E-05	0.0010				0	0				
Cadmium	0.0101	0.0010	0.01		101	70	130				
Calcium	111	0.50	120		93	70	130				
Chromium	0.0215	0.010	0.02		108	70	130				
Cobalt	0.0229	0.010	0.02		115	70	130				
Copper	0.0201	0.010	0.02		101	70	130				
Iron	99.3	0.030	100		99	70	130				
Lead	6.10E-05	0.010				0	0				
Magnesium	41.4	0.50	40		103	70	130				
Manganese	0.0225	0.010	0.02		113	70	130				
Mercury	1.70E-05	0.0010				0	0				
Nickel	0.0217	0.010	0.02		108	70	130				
Potassium	40.1	0.50	40		100	70	130				
Selenium	0.0106	0.0050	0.01		106	70	130				
Silver	0.0193	0.0050	0.02		96	70	130				
Sodium	104	0.50	100		104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72000

Run ID :Run Order: ICPMS204-B_110620B: 410	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 06/22/11 11:28	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	3.10E-05	0.10				0	0				
Vanadium	0.0204	0.10	0.02		102	70	130				
Zinc	0.0108	0.010	0.01		107	70	130				

Associated samples: **H11060300-001B; H11060300-001C; H11060300-002B; H11060300-002C; H11060300-003B; H11060300-003C; H11060300-004B; H11060300-004C;**
H11060300-005B; H11060300-005C; H11060300-006B; H11060300-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 52 of 59

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72108

Run ID :Run Order: ICPMS204-B_110622A: 8	SampType: Initial Calibration Verification Standard	Sample ID: ICV STD	Method: E200.8
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Analysis Date: 06/22/11 23:20	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.248	0.010	0.25		99	90	110				
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Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 9	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 06/22/11 23:25	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.00179	0.010									
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Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 10	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 06/22/11 23:29	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.0230	0.010	0.02		115	70	130				
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Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 95	SampType: Initial Calibration Verification Standard	Sample ID: ICV STD	Method: E200.8
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Analysis Date: 06/23/11 05:52	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.247	0.010	0.25		99	90	110				
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Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 96	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 06/23/11 05:57	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.00197	0.010									
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Associated samples: **H11060300-006C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72108

Run ID :Run Order: ICPMS204-B_110622A: 97		SampType: Interference Check Sample AB			Sample ID: ICSAB				Method: E200.8		
Analysis Date: 06/23/11 06:01		Units: mg/L			Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0226	0.010	0.02		113	70	130				

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 220		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD				Method: E200.8		
Analysis Date: 06/23/11 15:57		Units: mg/L			Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.249	0.010	0.25		100	90	110				

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 221		SampType: Interference Check Sample A			Sample ID: ICSA				Method: E200.8		
Analysis Date: 06/23/11 16:01		Units: mg/L			Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.00201	0.010									

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 222		SampType: Interference Check Sample AB			Sample ID: ICSAB				Method: E200.8		
Analysis Date: 06/23/11 16:06		Units: mg/L			Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0216	0.010	0.02		108	70	130				

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 408		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD				Method: E200.8		
Analysis Date: 06/24/11 06:10		Units: mg/L			Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.254	0.010	0.25		102	90	110				

Associated samples: **H11060300-006C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72108

Run ID :Run Order: ICPMS204-B_110622A: 409		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 06/24/11 06:14		Units: mg/L			Prep Info:			Prep Date:				
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese		0.00207		0.010								

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 410		SampType: Interference Check Sample AB			Sample ID: ICSAB			Method: E200.8				
Analysis Date: 06/24/11 06:19		Units: mg/L			Prep Info:			Prep Date:				
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese		0.0219		0.010	0.02	109	70	130				

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 489		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD			Method: E200.8				
Analysis Date: 06/24/11 12:34		Units: mg/L			Prep Info:			Prep Date:				
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese		0.246		0.010	0.25	98	90	110				

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 490		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 06/24/11 12:41		Units: mg/L			Prep Info:			Prep Date:				
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese		0.00190		0.010								

Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 491		SampType: Interference Check Sample AB			Sample ID: ICSAB			Method: E200.8				
Analysis Date: 06/24/11 12:46		Units: mg/L			Prep Info:			Prep Date:				
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese		0.0215		0.010	0.02	107	70	130				

Associated samples: **H11060300-006C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11060300

ANALYTICAL QC SUMMARY REPORT

Date: 25-Jul-11

Project: Section 35 Baseline

BatchID: R72108

Run ID :Run Order: ICPMS204-B_110622A: 648	SampType: Initial Calibration Verification Standard	Sample ID: ICV STD	Method: E200.8
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Analysis Date: 06/25/11 01:24	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.246	0.010	0.25		98	90	110				
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Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 649	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 06/25/11 01:29	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.00180	0.010									
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Associated samples: **H11060300-006C**

Run ID :Run Order: ICPMS204-B_110622A: 650	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 06/25/11 01:34	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Manganese	0.0210	0.010	0.02		105	70	130				
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Associated samples: **H11060300-006C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11060300

Login completed by: Tracy L. Lorash

Date Received: 6/15/2011

Reviewed by: BL2000\sdull

Received by: elm

Reviewed Date: 6/20/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.5°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

S35SW06 has a collection time of 14:10 on COC - unpreserved container has time of 16:10. Logged in as 14:10 per COC and other sample bottles. TI 6/16/11.



Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: <i>MDLQ-SRS</i>	Project Name, PWS, Permit, Etc. Contact Name: <i>Shelli Hana</i> Phone/Fax: <i>841-5033</i>	Sample Origin State: <i>NY</i>	EPA/State Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Sampler: (Please Print) <i>Aiken Standard NYK Kostrinich</i>
Report Mail Address: Quote #: <i>14-645</i>	Invoice Contact & Phone: <i>Shelli Hana</i>	Email: <i>shackland@nt.gov</i>	Quote/Bottle Order:
Special Report/Formats - ELI must be notified prior to sample submittal for the following:		<input type="checkbox"/> DW <input type="checkbox"/> A2LA <input type="checkbox"/> GSA <input type="checkbox"/> EDD/EDT(Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: <input type="checkbox"/> State: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC	
ANALYTICAL REQUEST Number of Containers: _____ Sample Type: A/W/S VBO Air/Water/Solids/Solids/Biosolids/Other Vegetation: _____			
SEE ATTACHED Normal Turnaround (TAT)			
R	U	S	H
Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page Comments: _____			
Purchase Order: _____			
Shipped by <i>UPS</i> Carrier ID(s): <i>555-C</i> Receipt Temp: <i>55</i> On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Custody Seal <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Intact Signature <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Match			
LABORATORY USE ONLY <i>4/10/0300</i>			
Received by (print): <i>John Shuck</i> Date/Time: <i>11/11/12:15</i> Received by (print): <i>John Shuck</i> Date/Time: <i>11/11/12:15</i> Custody Record MUST be Signed			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
 This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.
 Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Analyte Limits For Quote #: H-645

Schedule Name <i>TestName</i>	Analyte	Report Limit	Units
<i>UBMC Surface Water Section 35 Baseline</i>			
Acidity, Total as CaCO ₃	Acidity, Total as CaCO ₃	4	mg/L
Alkalinity	Alkalinity, Total as CaCO ₃	4	mg/L
	Bicarbonate as HCO ₃	4	mg/L
	Carbonate as CO ₃	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO ₃	Hardness as CaCO ₃	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved-TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

July 13, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11060355 Quote ID: H645

Project Name: UBMC

Energy Laboratories Inc Helena MT received the following 10 samples for MT DEQ-Site Response on 6/17/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11060355-001	S35MW01	06/16/11 15:50	06/17/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Prep for low level 245.7 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060355-002	S35MW03	06/16/11 17:50	06/17/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Prep for low level 245.7 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060355-003	S35MW04	06/16/11 18:34	06/17/11	Aqueous	Same As Above
H11060355-004	S35MW07	06/16/11 18:34	06/17/11	Aqueous	Same As Above
H11060355-005	S35MW08	06/17/11 7:18	06/17/11	Aqueous	Same As Above
H11060355-006	S35MW06	06/17/11 8:15	06/17/11	Aqueous	Same As Above
H11060355-007	S35MW02	06/17/11 10:04	06/17/11	Aqueous	Same As Above
H11060355-008	S35MW05	06/17/11 10:38	06/17/11	Aqueous	Same As Above
H11060355-009	S35MW09	06/17/11 11:05	06/17/11	Aqueous	Same As Above
H11060355-010	TB061511HCL200406181	06/16/11 15:50	06/17/11	Trip Blank	Prep for low level 245.7

1

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

ANALYTICAL SUMMARY REPORT

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response**Project:** UBM/C**Sample Delivery Group:** H11060355**Report Date:** 07/18/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11060355-001
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 15:50 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	06/23/11 18:13 / zeg		MAN-TECH_110623B : 24		R72125
Conductivity	271	umhos/cm		1		A2510 B	06/20/11 15:43 / cmm		COND_110620A : 4510620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/20/11 14:57 / cmm	06/20/11 10:58-124 (14410200)_110620A : 91			12622
Solids, Total Dissolved TDS @ 180 C	150	mg/L		10		A2540 C	06/20/11 16:46 / cmm	06/20/11 11:08-124 (14410200)_110620B : 44			12625
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		4		A2320 B	06/20/11 20:48 / zeg		MAN-TECH_110620A : 77		R71994
Bicarbonate as HCO3	190	mg/L		4		A2320 B	06/20/11 20:48 / zeg		MAN-TECH_110620A : 77		R71994
Carbonate as CO3	ND	mg/L		4		A2320 B	06/20/11 20:48 / zeg		MAN-TECH_110620A : 77		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 16:55 / zeg		IC102-H_110622A : 28		R72107
Sulfate	6	mg/L		1		E300.0	06/22/11 16:55 / zeg		IC102-H_110622A : 28		R72107
Hardness as CaCO3	151	mg/L		1		A2340 B	06/24/11 07:59 / abb		CALC_110628A : 124		R72240
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Barium	0.273	mg/L		0.005		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Calcium	32	mg/L		1		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Iron	ND	mg/L		0.05		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Magnesium	17	mg/L		1		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Manganese	ND	mg/L		0.005		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Potassium	1	mg/L		1		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11060355-001
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 15:50 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Sodium	2	mg/L		1		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Thallium	ND	mg/L		0.0002		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Vanadium	ND	mg/L		0.1		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
Zinc	ND	mg/L		0.01		E200.8	06/24/11 07:59 / dck		ICPMS204-B_110622A : 432		R72108
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Barium	0.274	mg/L		0.005		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Calcium	32	mg/L		1		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Iron	ND	mg/L		0.03		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Magnesium	17	mg/L		1		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Manganese	ND	mg/L		0.005		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Potassium	1	mg/L		1		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Silver	ND	mg/L		0.0005		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Sodium	2	mg/L		1		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Thallium	ND	mg/L		0.0002		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Vanadium	ND	mg/L		0.1		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108
Zinc	ND	mg/L		0.01		E200.8	06/24/11 08:04 / dck		ICPMS204-B_110622A : 433		R72108

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11060355-002
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 17:50 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	06/23/11 18:21 / zeg		MAN-TECH_110623B : 26		R72125
Conductivity	310	umhos/cm		1		A2510 B	06/20/11 15:44 / cmm		COND_110620A : 4610620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	60	mg/L		10		A2540 D	06/20/11 14:57 / cmm	06/20/11 10:58-124 (14410200)_110620A : 92			12622
Solids, Total Dissolved TDS @ 180 C	162	mg/L		10		A2540 C	06/20/11 15:22 / cmm	06/20/11 11:08-124 (14410200)_110620B : 45			12625
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		4		A2320 B	06/20/11 20:55 / zeg		MAN-TECH_110620A : 78		R71994
Bicarbonate as HCO3	210	mg/L		4		A2320 B	06/20/11 20:55 / zeg		MAN-TECH_110620A : 78		R71994
Carbonate as CO3	ND	mg/L		4		A2320 B	06/20/11 20:55 / zeg		MAN-TECH_110620A : 78		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 17:07 / zeg		IC102-H_110622A : 29		R72107
Sulfate	4	mg/L		1		E300.0	06/22/11 17:07 / zeg		IC102-H_110622A : 29		R72107
Hardness as CaCO3	151	mg/L		1		A2340 B	06/24/11 08:09 / abb		CALC_110628A : 135		R72240
METALS, DISSOLVED											
Aluminum	0.04	mg/L		0.03		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Barium	0.326	mg/L		0.005		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Calcium	43	mg/L		1		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Chromium	0.002	mg/L		0.001		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Iron	ND	mg/L		0.05		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Magnesium	10	mg/L		1		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Manganese	0.066	mg/L		0.005		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Potassium	2	mg/L		1		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11060355-002
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 17:50 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Sodium	11	mg/L		1	E200.8		06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 08:09 / dck		ICPMS204-B_110622A : 434		R72108
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 13:38 / eli-c	06/27/11 10:25	SUB-C147396 : 31		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	1.36	mg/L		0.03	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Barium	0.361	mg/L		0.005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Cadmium	0.00010	mg/L		0.00008	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Calcium	44	mg/L		1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Chromium	0.004	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Copper	0.003	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Iron	1.24	mg/L		0.03	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Lead	0.0016	mg/L		0.0005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Magnesium	11	mg/L		1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Manganese	0.145	mg/L		0.005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Potassium	2	mg/L		1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Sodium	12	mg/L		1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644
Zinc	ND	mg/L		0.01	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11060355-003
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 18:34 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	06/23/11 18:28 / zeg		MAN-TECH_110623B : 28		R72125
Conductivity	216	umhos/cm		1		A2510 B	06/20/11 15:45 / cmm		COND_110620A : 4710620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	154	mg/L		10		A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58-124 (14410200)_110620A : 93			12622
Solids, Total Dissolved TDS @ 180 C	170	mg/L		10		A2540 C	06/20/11 15:24 / cmm	06/20/11 11:08-124 (14410200)_110620B : 46			12625
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L		4		A2320 B	06/20/11 21:02 / zeg		MAN-TECH_110620A : 79		R71994
Bicarbonate as HCO ₃	140	mg/L		4		A2320 B	06/20/11 21:02 / zeg		MAN-TECH_110620A : 79		R71994
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/20/11 21:02 / zeg		MAN-TECH_110620A : 79		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 17:42 / zeg		IC102-H_110622A : 32		R72107
Sulfate	ND	mg/L		1		E300.0	06/22/11 17:42 / zeg		IC102-H_110622A : 32		R72107
Hardness as CaCO ₃	113	mg/L		1		A2340 B	06/24/11 09:16 / abb		CALC_110628A : 146		R72240
METALS, DISSOLVED											
Aluminum	0.07	mg/L		0.03		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Barium	0.283	mg/L		0.005		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Calcium	34	mg/L		1		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Copper	0.001	mg/L		0.001		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Iron	0.05	mg/L		0.05		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Magnesium	7	mg/L		1		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Manganese	0.023	mg/L		0.005		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Potassium	2	mg/L		1		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11060355-003
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 18:34 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Sodium	2	mg/L		1	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 13:41 / eli-c	06/27/11 10:25	SUB-C147396 : 24		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	2.64	mg/L		0.03	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Barium	0.352	mg/L		0.005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Cadmium	0.00015	mg/L		0.00008	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Calcium	35	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Chromium	0.022	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Copper	0.005	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Iron	3.29	mg/L		0.03	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Lead	0.0029	mg/L		0.0005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Magnesium	7	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Manganese	0.181	mg/L		0.005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Potassium	2	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Sodium	2	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Zinc	0.02	mg/L		0.01	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11060355-004
Matrix: Aqueous

Project: UBMC
Collection Date: 06/16/11 18:34 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	06/23/11 18:35 / zeg		MAN-TECH_110623B : 30		R72125
Conductivity	216	umhos/cm		1		A2510 B	06/20/11 15:46 / cmm		COND_110620A : 4810620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	142	mg/L		10		A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58-124 (14410200)_110620A : 94			12622
Solids, Total Dissolved TDS @ 180 C	152	mg/L		10		A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08-124 (14410200)_110620B : 47			12625
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L		4		A2320 B	06/20/11 21:09 / zeg		MAN-TECH_110620A : 80		R71994
Bicarbonate as HCO ₃	140	mg/L		4		A2320 B	06/20/11 21:09 / zeg		MAN-TECH_110620A : 80		R71994
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/20/11 21:09 / zeg		MAN-TECH_110620A : 80		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 17:53 / zeg		IC102-H_110622A : 33		R72107
Sulfate	ND	mg/L		1		E300.0	06/22/11 17:53 / zeg		IC102-H_110622A : 33		R72107
Hardness as CaCO ₃	111	mg/L		1		A2340 B	06/24/11 09:44 / abb		CALC_110628A : 157		R72240
METALS, DISSOLVED											
Aluminum	0.06	mg/L		0.03		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Barium	0.281	mg/L		0.005		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Calcium	34	mg/L		1		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Copper	0.001	mg/L		0.001		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Iron	ND	mg/L		0.05		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Magnesium	6	mg/L		1		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Manganese	0.026	mg/L		0.005		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Potassium	2	mg/L		1		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35MW07

Lab ID: H11060355-004

Matrix: Aqueous

Project: UBMC

Collection Date: 06/16/11 18:34

DateReceived: 06/17/11

Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Sodium	1	mg/L		1	E200.8		06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 09:44 / dck		ICPMS204-B_110622A : 455		R72108
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 13:43 / eli-c	06/27/11 10:25	SUB-C147396 : 26		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	2.58	mg/L		0.03	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Barium	0.344	mg/L		0.005	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Cadmium	0.00015	mg/L		0.00008	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Calcium	35	mg/L		1	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Chromium	0.022	mg/L		0.001	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Copper	0.005	mg/L		0.001	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Iron	3.25	mg/L		0.03	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Lead	0.0028	mg/L		0.0005	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Magnesium	7	mg/L		1	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Manganese	0.176	mg/L		0.005	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Potassium	2	mg/L		1	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Sodium	2	mg/L		1	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644
Zinc	0.02	mg/L		0.01	E200.8		06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11060355-005
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 07:18 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.5	s.u.		0.1		A4500-H B	06/23/11 18:39 / zeg		MAN-TECH_110623B : 32		R72125
Conductivity	1	umhos/cm		1		A2510 B	06/20/11 15:47 / cmm		COND_110620A : 4910620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58-124 (14410200)_110620A : 95			12622
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08-124 (14410200)_110620B : 48			12625
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	06/20/11 21:14 / zeg		MAN-TECH_110620A : 81		R71994
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	06/20/11 21:14 / zeg		MAN-TECH_110620A : 81		R71994
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/20/11 21:14 / zeg		MAN-TECH_110620A : 81		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 18:05 / zeg		IC102-H_110622A : 34		R72107
Sulfate	ND	mg/L		1		E300.0	06/22/11 18:05 / zeg		IC102-H_110622A : 34		R72107
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	06/29/11 15:39 / abb		WATERCALC_110629A : 18		R72279
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Barium	ND	mg/L		0.005		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Calcium	ND	mg/L		1		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Iron	ND	mg/L		0.05		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Magnesium	ND	mg/L		1		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Manganese	ND	mg/L		0.005		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Potassium	ND	mg/L		1		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11060355-005
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 07:18 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Sodium	ND	mg/L		1	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457		R72108
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 13:46 / eli-c	06/27/11 10:25	SUB-C147396 : 25		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Antimony	ND	mg/L		0.003	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Barium	ND	mg/L		0.005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Cadmium	ND	mg/L		0.00008	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Calcium	ND	mg/L		1	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Chromium	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Copper	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Iron	ND	mg/L		0.03	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Lead	ND	mg/L		0.0005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Magnesium	ND	mg/L		1	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Manganese	ND	mg/L		0.005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Mercury	ND	mg/L		0.00001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Nickel	ND	mg/L		0.01	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Potassium	ND	mg/L		1	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Selenium	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Sodium	ND	mg/L		1	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11060355-005
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 07:18 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Zinc	ND	mg/L		0.01		E200.8	06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11060355-006
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 08:15 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	06/23/11 18:51 / zeg		MAN-TECH_110623B : 36		R72125
Conductivity	306	umhos/cm		1		A2510 B	06/20/11 15:48 / cmm		COND_110620A : 5010620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	14	mg/L		10		A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58-124 (14410200)_110620A : 96			12622
Solids, Total Dissolved TDS @ 180 C	162	mg/L		10		A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08-124 (14410200)_110620B : 49			12625
INORGANICS											
Alkalinity, Total as CaCO ₃	170	mg/L		4		A2320 B	06/20/11 21:21 / zeg		MAN-TECH_110620A : 82		R71994
Bicarbonate as HCO ₃	210	mg/L		4		A2320 B	06/20/11 21:21 / zeg		MAN-TECH_110620A : 82		R71994
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/20/11 21:21 / zeg		MAN-TECH_110620A : 82		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 18:17 / zeg		IC102-H_110622A : 35		R72107
Sulfate	ND	mg/L		1		E300.0	06/22/11 18:17 / zeg		IC102-H_110622A : 35		R72107
Hardness as CaCO ₃	161	mg/L		1		A2340 B	06/24/11 10:02 / abb		CALC_110628A : 179		R72240
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Barium	0.726	mg/L		0.005		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Calcium	45	mg/L		1		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Copper	0.001	mg/L		0.001		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Iron	ND	mg/L		0.05		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Magnesium	12	mg/L		1		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Manganese	0.005	mg/L		0.005		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Mercury	0.00002	mg/L		0.00001		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Potassium	ND	mg/L		1		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11060355-006
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 08:15 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Sodium	4	mg/L		1	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459		R72108
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 13:48 / eli-c	06/27/11 10:25	SUB-C147396 : 30		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	0.54	mg/L		0.03	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Barium	0.772	mg/L		0.005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Cadmium	ND	mg/L		0.00008	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Calcium	45	mg/L		1	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Chromium	0.002	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Copper	0.003	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Iron	0.56	mg/L		0.03	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Lead	0.0006	mg/L		0.0005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Magnesium	13	mg/L		1	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Manganese	0.020	mg/L		0.005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Potassium	1	mg/L		1	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Sodium	5	mg/L		1	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644
Zinc	ND	mg/L		0.01	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11060355-007
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 10:04 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	06/23/11 18:58 / zeg		MAN-TECH_110623B : 38		R72125
Conductivity	444	umhos/cm		1		A2510 B	06/20/11 15:49 / cmm		COND_110620A : 51	10620A-COND-PROBI	
Solids, Total Suspended TSS @ 105 C	58	mg/L		10		A2540 D	06/20/11 15:01 / cmm	06/20/11 14:53-124 (14410200)_110620A : 99			12631
Solids, Total Dissolved TDS @ 180 C	254	mg/L		10		A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08-124 (14410200)_110620B : 50			12625
INORGANICS											
Alkalinity, Total as CaCO ₃	240	mg/L		4		A2320 B	06/20/11 21:29 / zeg		MAN-TECH_110620A : 83		R71994
Bicarbonate as HCO ₃	300	mg/L		4		A2320 B	06/20/11 21:29 / zeg		MAN-TECH_110620A : 83		R71994
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/20/11 21:29 / zeg		MAN-TECH_110620A : 83		R71994
Chloride	2	mg/L		1		E300.0	06/22/11 18:28 / zeg		IC102-H_110622A : 36		R72107
Sulfate	6	mg/L		1		E300.0	06/22/11 18:28 / zeg		IC102-H_110622A : 36		R72107
Hardness as CaCO ₃	221	mg/L		1		A2340 B	06/24/11 10:11 / abb		CALC_110628A : 190		R72240
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Barium	0.853	mg/L		0.005		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Calcium	64	mg/L		1		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Iron	ND	mg/L		0.05		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Magnesium	15	mg/L		1		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Manganese	ND	mg/L		0.005		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Potassium	2	mg/L		1		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11060355-007
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 10:04 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Sodium	4	mg/L		1		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Thallium	ND	mg/L		0.0002		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Vanadium	ND	mg/L		0.1		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
Zinc	ND	mg/L		0.01		E200.8	06/24/11 10:11 / dck		ICPMS204-B_110622A : 461		R72108
METALS, TOTAL											
Mercury	81.6	ng/L		10.0		E245.7	06/27/11 14:00 / eli-c	06/27/11 10:25	SUB-C147396 : 34		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	0.53	mg/L		0.03		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Antimony	ND	mg/L		0.003		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Barium	0.902	mg/L		0.005		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Cadmium	0.00012	mg/L		0.00008		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Calcium	66	mg/L		1		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Chromium	0.002	mg/L		0.001		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Copper	0.004	mg/L		0.001		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Iron	1.19	mg/L		0.03		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Lead	0.0023	mg/L		0.0005		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Magnesium	15	mg/L		1		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Manganese	0.037	mg/L		0.005		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Nickel	ND	mg/L		0.01		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Potassium	2	mg/L		1		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Selenium	ND	mg/L		0.001		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Silver	0.0011	mg/L		0.0005		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Sodium	4	mg/L		1		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Thallium	ND	mg/L		0.0002		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Vanadium	ND	mg/L		0.1		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644
Zinc	0.01	mg/L		0.01		E200.8	06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW05
Lab ID: H11060355-008
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 10:38 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.2	s.u.		0.1		A4500-H B	06/23/11 19:04 / zeg		MAN-TECH_110623B : 40		R72125
Conductivity	58	umhos/cm		1		A2510 B	06/20/11 15:50 / cmm		COND_110620A : 5210620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	184	mg/L		10		A2540 D	06/20/11 15:01 / cmm	06/20/11 14:53 24 (14410200)_110620A : 101			12631
Solids, Total Dissolved TDS @ 180 C	136	mg/L		10		A2540 C	06/20/11 15:26 / cmm	06/20/11 14:56 124 (14410200)_110620B : 53			12632
INORGANICS											
Alkalinity, Total as CaCO ₃	28	mg/L		4		A2320 B	06/20/11 21:35 / zeg		MAN-TECH_110620A : 84		R71994
Bicarbonate as HCO ₃	34	mg/L		4		A2320 B	06/20/11 21:35 / zeg		MAN-TECH_110620A : 84		R71994
Carbonate as CO ₃	ND	mg/L		4		A2320 B	06/20/11 21:35 / zeg		MAN-TECH_110620A : 84		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 19:03 / zeg		IC102-H_110622A : 39		R72107
Sulfate	ND	mg/L		1		E300.0	06/22/11 19:03 / zeg		IC102-H_110622A : 39		R72107
Hardness as CaCO ₃	27	mg/L		1		A2340 B	06/24/11 10:20 / abb		CALC_110628A : 201		R72240
METALS, DISSOLVED											
Aluminum	1.16	mg/L		0.03		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Barium	0.105	mg/L		0.005		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Cadmium	0.00012	mg/L		0.00008		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Calcium	8	mg/L		1		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Copper	0.004	mg/L		0.001		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Iron	0.59	mg/L		0.05		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Lead	0.0012	mg/L		0.0005		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Magnesium	2	mg/L		1		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Manganese	0.039	mg/L		0.005		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/28/11 02:17 / dck		ICPMS204-B_110626A : 388		R72189
Nickel	ND	mg/L		0.01		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Potassium	1	mg/L		1		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35MW05

Lab ID: H11060355-008

Matrix: Aqueous

Project: UBMC

Collection Date: 06/17/11 10:38

DateReceived: 06/17/11

Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Sodium	2	mg/L		1	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Zinc	0.01	mg/L		0.01	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
METALS, TOTAL											
Mercury	17.9	ng/L		10.0	E245.7		06/27/11 14:03 / eli-c	06/27/11 10:25	SUB-C147396 : 32		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	5.13	mg/L		0.03	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Barium	0.195	mg/L		0.005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Cadmium	0.00013	mg/L		0.00008	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Calcium	9	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Chromium	0.018	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Copper	0.011	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Iron	4.89	mg/L		0.03	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Lead	0.0041	mg/L		0.0005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Magnesium	3	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Manganese	0.105	mg/L		0.005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Potassium	2	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Sodium	2	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Zinc	0.03	mg/L		0.01	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11060355-009
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 11:05 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.9	s.u.		0.1		A4500-H B	06/23/11 19:09 / zeg		MAN-TECH_110623B : 42		R72125
Conductivity	2	umhos/cm		1		A2510 B	06/20/11 15:52 / cmm		COND_110620A : 5410620A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	06/20/11 15:01 / cmm	06/20/11 14:53:24 (14410200)_110620A : 102			12631
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	06/20/11 15:26 / cmm	06/20/11 14:56:124 (14410200)_110620B : 55			12632
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	06/20/11 21:40 / zeg		MAN-TECH_110620A : 85		R71994
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	06/20/11 21:40 / zeg		MAN-TECH_110620A : 85		R71994
Carbonate as CO3	ND	mg/L		4		A2320 B	06/20/11 21:40 / zeg		MAN-TECH_110620A : 85		R71994
Chloride	ND	mg/L		1		E300.0	06/22/11 19:15 / zeg		IC102-H_110622A : 40		R72107
Sulfate	ND	mg/L		1		E300.0	06/22/11 19:15 / zeg		IC102-H_110622A : 40		R72107
Hardness as CaCO3	ND	mg/L		1		A2340 B	06/29/11 15:39 / abb		WATERCALC_110629A : 19		R72279
METALS, DISSOLVED											
Aluminum	0.06	mg/L		0.03		E200.8	06/28/11 02:26 / dck		ICPMS204-B_110626A : 390		R72189
Antimony	ND	mg/L		0.003		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Barium	ND	mg/L		0.005		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Cadmium	0.00011	mg/L		0.00008		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Calcium	ND	mg/L		1		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Iron	0.05	mg/L		0.05		E200.8	06/28/11 02:26 / dck		ICPMS204-B_110626A : 390		R72189
Lead	ND	mg/L		0.0005		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Magnesium	ND	mg/L		1		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Manganese	ND	mg/L		0.005		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Potassium	ND	mg/L		1		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11060355-009
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 11:05 **DateReceived:** 06/17/11
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Sodium	ND	mg/L		1	E200.8		06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 11:11 / dck		ICPMS204-B_110622A : 474		R72108
-The dissolved metals were confirmed with duplicate analysis.											
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 14:05 / eli-c	06/27/11 10:25	SUB-C147396 : 29		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	0.12	mg/L		0.03	E200.8		06/29/11 23:42 / dck	06/28/11 15:28	ICPMS204-B_110628A : 448		12741
Antimony	ND	mg/L		0.003	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Barium	ND	mg/L		0.005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Cadmium	0.00492	mg/L		0.00008	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Calcium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Chromium	0.001	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Copper	ND	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Iron	0.11	mg/L		0.03	E200.8		06/28/11 02:58 / dck	06/21/11 09:05	ICPMS204-B_110626A : 397		12644
Lead	ND	mg/L		0.0005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Magnesium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Manganese	ND	mg/L		0.005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Potassium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Sodium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Zinc	ND	mg/L		0.01	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response**Project:** UBMC**Client Sample ID** S35MW09**Collection Date:** 06/17/11 11:05**DateReceived:** 06/17/11**Lab ID:** H11060355-009**Report Date:** 07/18/11**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
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METALS, TOTAL RECOVERABLE

-The Total Recoverable Metals were confirmed with duplicate analysis.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R71994
Sample ID: MBLK		Method Blank				Run: MAN-TECH_110620A				06/20/11 16:39
Alkalinity, Total as CaCO ₃		1	mg/L	0.6						
Sample ID: LCS-06202011		Laboratory Control Sample				Run: MAN-TECH_110620A				06/20/11 16:47
Alkalinity, Total as CaCO ₃		610	mg/L	4.0	102	90	110			
Sample ID: H11060342-008ADUP	3	Sample Duplicate				Run: MAN-TECH_110620A				06/20/11 20:11
Alkalinity, Total as CaCO ₃		52	mg/L	4.0				0.8	20	
Bicarbonate as HCO ₃		63	mg/L	4.0				0.8	20	
Carbonate as CO ₃		ND	mg/L	4.0					20	
Sample ID: H11060342-010AMS		Sample Matrix Spike				Run: MAN-TECH_110620A				06/20/11 20:27
Alkalinity, Total as CaCO ₃		650	mg/L	4.0	90	90	110			
Sample ID: H11060355-009ADUP	3	Sample Duplicate				Run: MAN-TECH_110620A				06/20/11 21:44
Alkalinity, Total as CaCO ₃		1.4	mg/L	4.0					20	
Bicarbonate as HCO ₃		1.7	mg/L	4.0					20	
Carbonate as CO ₃		ND	mg/L	4.0					20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B										Analytical Run: COND_110620A
Sample ID: ICV1_110620A			Initial Calibration Verification Standard							06/20/11 11:35
Conductivity		989	umhos/cm	1.0	99	90	110			
Sample ID: CCV6_110620A			Continuing Calibration Verification Standard							06/20/11 12:12
Conductivity		1400	umhos/cm	1.0	100	90	110			
Sample ID: CCV7_110620A			Continuing Calibration Verification Standard							06/20/11 15:52
Conductivity		1420	umhos/cm	1.0	101	90	110			
Method: A2510 B										Batch: 110620A-COND-PROBE-W
Sample ID: H11060352-008ADUP			Sample Duplicate					Run: COND_110620A		06/20/11 12:28
Conductivity		258	umhos/cm	1.0					0.9	10
Sample ID: H11060355-009ADUP			Sample Duplicate					Run: COND_110620A		06/20/11 15:52
Conductivity		1.52	umhos/cm	1.0					0.7	10

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: 12625
Sample ID: MB-12625	Method Blank			Run: ACCU-124 (14410200)_110620						06/20/11 15:14
Solids, Total Dissolved TDS @ 180 C		2	mg/L	1.0						
Sample ID: LCS-12625	Laboratory Control Sample			Run: ACCU-124 (14410200)_110620						06/20/11 15:14
Solids, Total Dissolved TDS @ 180 C	2020	mg/L		10	101	90	110			
Sample ID: H11060346-020BDUP	Sample Duplicate			Run: ACCU-124 (14410200)_110620						06/20/11 15:15
Solids, Total Dissolved TDS @ 180 C	1690	mg/L		10				4.0		5
Sample ID: H11060349-001AMS	Sample Matrix Spike			Run: ACCU-124 (14410200)_110620						06/20/11 15:18
Solids, Total Dissolved TDS @ 180 C	2890	mg/L		10	92	80	120			
Sample ID: H11060352-009ADUP	Sample Duplicate			Run: ACCU-124 (14410200)_110620						06/20/11 15:21
Solids, Total Dissolved TDS @ 180 C	228	mg/L		10				4.5		5
Method: A2540 C										Batch: 12632
Sample ID: MB-12632	Method Blank			Run: ACCU-124 (14410200)_110620						06/20/11 15:26
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		1.0						
Sample ID: LCS-12632	Laboratory Control Sample			Run: ACCU-124 (14410200)_110620						06/20/11 15:26
Solids, Total Dissolved TDS @ 180 C	1970	mg/L		10	98	90	110			
Sample ID: H11060355-008ADUP	Sample Duplicate			Run: ACCU-124 (14410200)_110620						06/20/11 15:26
Solids, Total Dissolved TDS @ 180 C	136	mg/L		10				0.0		5
Sample ID: H11060355-009AMS	Sample Matrix Spike			Run: ACCU-124 (14410200)_110620						06/20/11 15:27
Solids, Total Dissolved TDS @ 180 C	1960	mg/L		10	98	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D	Batch: 12622									
Sample ID: MB-12622	Method Blank						Run: ACCU-124 (14410200)_110620			06/20/11 12:31
Solids, Total Suspended TSS @ 105 C		ND	mg/L	1						
Sample ID: LCS-12622	Laboratory Control Sample						Run: ACCU-124 (14410200)_110620			06/20/11 12:32
Solids, Total Suspended TSS @ 105 C	1860	mg/L		10	93	70	130			
Sample ID: H11060346-017BDUP	Sample Duplicate						Run: ACCU-124 (14410200)_110620			06/20/11 12:33
Solids, Total Suspended TSS @ 105 C	4.00	mg/L		10						5
Sample ID: H11060352-007ADUP	Sample Duplicate						Run: ACCU-124 (14410200)_110620			06/20/11 12:36
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10						5
Method: A2540 D	Batch: 12631									
Sample ID: MB-12631	Method Blank						Run: ACCU-124 (14410200)_110620			06/20/11 15:00
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1						
Sample ID: LCS-12631	Laboratory Control Sample						Run: ACCU-124 (14410200)_110620			06/20/11 15:00
Solids, Total Suspended TSS @ 105 C	1740	mg/L		10	87	70	130			
Sample ID: H11060355-007ADUP	Sample Duplicate						Run: ACCU-124 (14410200)_110620			06/20/11 15:01
Solids, Total Suspended TSS @ 105 C	60.0	mg/L		10				3.4		5

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: MAN-TECH_110623B		
Sample ID: CCV1-1905		Continuing Calibration Verification Standard								06/23/11 16:37
pH		3.95	s.u.	0.10	99	98	102			
Sample ID: CCV-1943		Continuing Calibration Verification Standard								06/23/11 16:40
pH		6.96	s.u.	0.10	99	98	102			
Sample ID: ICV-1943		Initial Calibration Verification Standard								06/23/11 16:45
pH		6.95	s.u.	0.10	99	99	101			
Method: A4500-H B								Batch: R72125		
Sample ID: CCV3-2042		Continuing Calibration Verification Standard								06/23/11 16:43
pH		9.98	s.u.	0.10	100	98	110			
Sample ID: H11060355-005ADUP		Sample Duplicate								06/23/11 18:44
pH		5.27	s.u.	0.10				3.5	3	R

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICV STD	23	Initial Calibration Verification Standard								06/22/11 23:20
Aluminum		0.250	mg/L	0.10	100	90	110			
Antimony		0.0506	mg/L	0.050	101	90	110			
Arsenic		0.0495	mg/L	0.0050	99	90	110			
Barium		0.0504	mg/L	0.10	101	90	110			
Beryllium		0.0258	mg/L	0.0010	103	90	110			
Cadmium		0.0264	mg/L	0.0010	106	90	110			
Calcium		2.53	mg/L	0.50	101	90	110			
Chromium		0.0489	mg/L	0.010	98	90	110			
Cobalt		0.0507	mg/L	0.010	101	90	110			
Copper		0.0509	mg/L	0.010	102	90	110			
Iron		0.255	mg/L	0.030	102	90	110			
Lead		0.0509	mg/L	0.010	102	90	110			
Magnesium		2.52	mg/L	0.50	101	90	110			
Manganese		0.248	mg/L	0.010	99	90	110			
Mercury		0.00201	mg/L	0.0010	100	90	110			
Nickel		0.0499	mg/L	0.010	100	90	110			
Potassium		2.51	mg/L	0.50	100	90	110			
Selenium		0.0502	mg/L	0.0050	100	90	110			
Silver		0.0255	mg/L	0.0050	102	90	110			
Sodium		2.48	mg/L	0.50	99	90	110			
Thallium		0.0497	mg/L	0.10	99	90	110			
Vanadium		0.0492	mg/L	0.10	98	90	110			
Zinc		0.0506	mg/L	0.010	101	90	110			
Sample ID: ICSA	23	Interference Check Sample A								06/22/11 23:25
Aluminum		41.8	mg/L	0.10	105	70	130			
Antimony		0.000337	mg/L	0.050						
Arsenic		0.000173	mg/L	0.0050						
Barium		0.000255	mg/L	0.10						
Beryllium		5.40E-05	mg/L	0.0010						
Cadmium		0.000657	mg/L	0.0010						
Calcium		117	mg/L	0.50	98	70	130			
Chromium		0.00234	mg/L	0.010						
Cobalt		0.00180	mg/L	0.010						
Copper		0.000457	mg/L	0.010						
Iron		102	mg/L	0.030	102	70	130			
Lead		0.000130	mg/L	0.010						
Magnesium		43.4	mg/L	0.50	108	70	130			
Manganese		0.00179	mg/L	0.010						
Mercury		4.90E-05	mg/L	0.0010						
Nickel		0.00101	mg/L	0.010						
Potassium		41.4	mg/L	0.50	104	70	130			
Selenium		0.000208	mg/L	0.0050						
Silver		0.000426	mg/L	0.0050						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICSA	23	Interference Check Sample A								06/22/11 23:25
Sodium		108	mg/L	0.50	108	70	130			
Thallium		0.000130	mg/L	0.10						
Vanadium		0.000200	mg/L	0.10						
Zinc		0.00117	mg/L	0.010						
Sample ID: ICSAB	23	Interference Check Sample AB								06/22/11 23:29
Aluminum		41.3	mg/L	0.10	103	70	130			
Antimony		0.000329	mg/L	0.050		0	0			
Arsenic		0.0109	mg/L	0.0050	109	70	130			
Barium		0.000229	mg/L	0.10		0	0			
Beryllium		8.80E-05	mg/L	0.0010		0	0			
Cadmium		0.0109	mg/L	0.0010	109	70	130			
Calcium		116	mg/L	0.50	97	70	130			
Chromium		0.0231	mg/L	0.010	116	70	130			
Cobalt		0.0232	mg/L	0.010	116	70	130			
Copper		0.0210	mg/L	0.010	105	70	130			
Iron		103	mg/L	0.030	103	70	130			
Lead		8.00E-05	mg/L	0.010		0	0			
Magnesium		43.8	mg/L	0.50	110	70	130			
Manganese		0.0230	mg/L	0.010	115	70	130			
Mercury		3.10E-05	mg/L	0.0010		0	0			
Nickel		0.0224	mg/L	0.010	112	70	130			
Potassium		41.2	mg/L	0.50	103	70	130			
Selenium		0.0105	mg/L	0.0050	105	70	130			
Silver		0.0206	mg/L	0.0050	103	70	130			
Sodium		109	mg/L	0.50	109	70	130			
Thallium		7.50E-05	mg/L	0.10		0	0			
Vanadium		0.0214	mg/L	0.10	107	70	130			
Zinc		0.0113	mg/L	0.010	113	70	130			
Sample ID: ICV STD	23	Initial Calibration Verification Standard								06/23/11 05:52
Aluminum		0.247	mg/L	0.10	99	90	110			
Antimony		0.0500	mg/L	0.050	100	90	110			
Arsenic		0.0501	mg/L	0.0050	100	90	110			
Barium		0.0507	mg/L	0.10	101	90	110			
Beryllium		0.0251	mg/L	0.0010	101	90	110			
Cadmium		0.0262	mg/L	0.0010	105	90	110			
Calcium		2.51	mg/L	0.50	101	90	110			
Chromium		0.0487	mg/L	0.010	97	90	110			
Cobalt		0.0496	mg/L	0.010	99	90	110			
Copper		0.0506	mg/L	0.010	101	90	110			
Iron		0.260	mg/L	0.030	104	90	110			
Lead		0.0502	mg/L	0.010	100	90	110			
Magnesium		2.52	mg/L	0.50	101	90	110			
Manganese		0.247	mg/L	0.010	99	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICV STD		23 Initial Calibration Verification Standard								06/23/11 05:52
Mercury		0.00197	mg/L	0.0010	99	90	110			
Nickel		0.0507	mg/L	0.010	101	90	110			
Potassium		2.57	mg/L	0.50	103	90	110			
Selenium		0.0511	mg/L	0.0050	102	90	110			
Silver		0.0257	mg/L	0.0050	103	90	110			
Sodium		2.48	mg/L	0.50	99	90	110			
Thallium		0.0502	mg/L	0.10	100	90	110			
Vanadium		0.0494	mg/L	0.10	99	90	110			
Zinc		0.0522	mg/L	0.010	104	90	110			
Sample ID: ICSA		23 Interference Check Sample A								06/23/11 05:57
Aluminum		40.9	mg/L	0.10	102	70	130			
Antimony		0.000341	mg/L	0.050						
Arsenic		0.000174	mg/L	0.0050						
Barium		0.000290	mg/L	0.10						
Beryllium		3.00E-05	mg/L	0.0010						
Cadmium		0.000565	mg/L	0.0010						
Calcium		117	mg/L	0.50	98	70	130			
Chromium		0.00218	mg/L	0.010						
Cobalt		0.00178	mg/L	0.010						
Copper		0.000462	mg/L	0.010						
Iron		103	mg/L	0.030	103	70	130			
Lead		0.000105	mg/L	0.010						
Magnesium		41.9	mg/L	0.50	105	70	130			
Manganese		0.00197	mg/L	0.010						
Mercury		5.40E-05	mg/L	0.0010						
Nickel		0.00132	mg/L	0.010						
Potassium		41.5	mg/L	0.50	104	70	130			
Selenium		0.000208	mg/L	0.0050						
Silver		0.000352	mg/L	0.0050						
Sodium		102	mg/L	0.50	102	70	130			
Thallium		0.000156	mg/L	0.10						
Vanadium		0.000196	mg/L	0.10						
Zinc		0.00119	mg/L	0.010						
Sample ID: ICSAB		23 Interference Check Sample AB								06/23/11 06:01
Aluminum		40.9	mg/L	0.10	102	70	130			
Antimony		0.000319	mg/L	0.050		0	0			
Arsenic		0.0107	mg/L	0.0050	107	70	130			
Barium		0.000236	mg/L	0.10		0	0			
Beryllium		1.10E-05	mg/L	0.0010		0	0			
Cadmium		0.0109	mg/L	0.0010	109	70	130			
Calcium		116	mg/L	0.50	97	70	130			
Chromium		0.0224	mg/L	0.010	112	70	130			
Cobalt		0.0228	mg/L	0.010	114	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual			
Method: E200.8						Analytical Run: ICPMS204-B_110622A							
Sample ID: ICSAB	23	Interference Check Sample AB								06/23/11 06:01			
Copper		0.0206	mg/L	0.010	103	70	130						
Iron		102	mg/L	0.030	102	70	130						
Lead		6.90E-05	mg/L	0.010		0	0						
Magnesium		42.1	mg/L	0.50	105	70	130						
Manganese		0.0226	mg/L	0.010	113	70	130						
Mercury		2.70E-05	mg/L	0.0010		0	0						
Nickel		0.0220	mg/L	0.010	110	70	130						
Potassium		41.3	mg/L	0.50	103	70	130						
Selenium		0.0106	mg/L	0.0050	106	70	130						
Silver		0.0204	mg/L	0.0050	102	70	130						
Sodium		104	mg/L	0.50	104	70	130						
Thallium		0.000102	mg/L	0.10		0	0						
Vanadium		0.0211	mg/L	0.10	106	70	130						
Zinc		0.0106	mg/L	0.010	106	70	130						
Sample ID: ICV STD	23	Initial Calibration Verification Standard								06/23/11 15:57			
Aluminum		0.249	mg/L	0.10	99	90	110						
Antimony		0.0500	mg/L	0.050	100	90	110						
Arsenic		0.0496	mg/L	0.0050	99	90	110						
Barium		0.0496	mg/L	0.10	99	90	110						
Beryllium		0.0247	mg/L	0.0010	99	90	110						
Cadmium		0.0267	mg/L	0.0010	107	90	110						
Calcium		2.49	mg/L	0.50	99	90	110						
Chromium		0.0489	mg/L	0.010	98	90	110						
Cobalt		0.0514	mg/L	0.010	103	90	110						
Copper		0.0508	mg/L	0.010	102	90	110						
Iron		0.257	mg/L	0.030	103	90	110						
Lead		0.0508	mg/L	0.010	102	90	110						
Magnesium		2.55	mg/L	0.50	102	90	110						
Manganese		0.249	mg/L	0.010	100	90	110						
Mercury		0.00205	mg/L	0.0010	103	90	110						
Nickel		0.0506	mg/L	0.010	101	90	110						
Potassium		2.51	mg/L	0.50	100	90	110						
Selenium		0.0495	mg/L	0.0050	99	90	110						
Silver		0.0258	mg/L	0.0050	103	90	110						
Sodium		2.53	mg/L	0.50	101	90	110						
Thallium		0.0506	mg/L	0.10	101	90	110						
Vanadium		0.0494	mg/L	0.10	99	90	110						
Zinc		0.0513	mg/L	0.010	103	90	110						
Sample ID: ICSA	23	Interference Check Sample A								06/23/11 16:01			
Aluminum		38.7	mg/L	0.10	97	70	130						
Antimony		0.000314	mg/L	0.050									
Arsenic		0.000187	mg/L	0.0050									
Barium		0.000165	mg/L	0.10									

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICSA	23	Interference Check Sample A								06/23/11 16:01
Beryllium		4.50E-05	mg/L	0.0010						
Cadmium		0.000479	mg/L	0.0010						
Calcium		109	mg/L	0.50	91	70	130			
Chromium		0.00204	mg/L	0.010						
Cobalt		0.00172	mg/L	0.010						
Copper		0.000381	mg/L	0.010						
Iron		94.2	mg/L	0.030	94	70	130			
Lead		9.20E-05	mg/L	0.010						
Magnesium		40.4	mg/L	0.50	101	70	130			
Manganese		0.00201	mg/L	0.010						
Mercury		5.70E-05	mg/L	0.0010						
Nickel		0.00108	mg/L	0.010						
Potassium		39.4	mg/L	0.50	99	70	130			
Selenium		0.000230	mg/L	0.0050						
Silver		0.000173	mg/L	0.0050						
Sodium		99.3	mg/L	0.50	99	70	130			
Thallium		6.80E-05	mg/L	0.10						
Vanadium		0.000228	mg/L	0.10						
Zinc		0.00126	mg/L	0.010						
Sample ID: ICSAB	23	Interference Check Sample AB								06/23/11 16:06
Aluminum		38.6	mg/L	0.10	96	70	130			
Antimony		0.000316	mg/L	0.050		0	0			
Arsenic		0.0102	mg/L	0.0050	102	70	130			
Barium		0.000155	mg/L	0.10		0	0			
Beryllium		2.80E-05	mg/L	0.0010		0	0			
Cadmium		0.0102	mg/L	0.0010	102	70	130			
Calcium		109	mg/L	0.50	91	70	130			
Chromium		0.0216	mg/L	0.010	108	70	130			
Cobalt		0.0221	mg/L	0.010	111	70	130			
Copper		0.0198	mg/L	0.010	99	70	130			
Iron		97.7	mg/L	0.030	98	70	130			
Lead		6.90E-05	mg/L	0.010		0	0			
Magnesium		41.2	mg/L	0.50	103	70	130			
Manganese		0.0216	mg/L	0.010	108	70	130			
Mercury		1.80E-05	mg/L	0.0010		0	0			
Nickel		0.0210	mg/L	0.010	105	70	130			
Potassium		39.5	mg/L	0.50	99	70	130			
Selenium		0.00970	mg/L	0.0050	97	70	130			
Silver		0.0191	mg/L	0.0050	96	70	130			
Sodium		103	mg/L	0.50	103	70	130			
Thallium		4.30E-05	mg/L	0.10		0	0			
Vanadium		0.0202	mg/L	0.10	101	70	130			
Zinc		0.0108	mg/L	0.010	108	70	130			

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICV STD	23	Initial Calibration Verification Standard								06/24/11 06:10
Aluminum		0.257	mg/L	0.10	103	90	110			
Antimony		0.0491	mg/L	0.050	98	90	110			
Arsenic		0.0495	mg/L	0.0050	99	90	110			
Barium		0.0492	mg/L	0.10	98	90	110			
Beryllium		0.0258	mg/L	0.0010	103	90	110			
Cadmium		0.0262	mg/L	0.0010	105	90	110			
Calcium		2.51	mg/L	0.50	100	90	110			
Chromium		0.0488	mg/L	0.010	98	90	110			
Cobalt		0.0519	mg/L	0.010	104	90	110			
Copper		0.0510	mg/L	0.010	102	90	110			
Iron		0.259	mg/L	0.030	103	90	110			
Lead		0.0504	mg/L	0.010	101	90	110			
Magnesium		2.56	mg/L	0.50	102	90	110			
Manganese		0.254	mg/L	0.010	102	90	110			
Mercury		0.00204	mg/L	0.0010	102	90	110			
Nickel		0.0502	mg/L	0.010	100	90	110			
Potassium		2.55	mg/L	0.50	102	90	110			
Selenium		0.0499	mg/L	0.0050	100	90	110			
Silver		0.0254	mg/L	0.0050	102	90	110			
Sodium		2.58	mg/L	0.50	103	90	110			
Thallium		0.0498	mg/L	0.10	100	90	110			
Vanadium		0.0492	mg/L	0.10	99	90	110			
Zinc		0.0509	mg/L	0.010	102	90	110			
Sample ID: ICSA	23	Interference Check Sample A								06/24/11 06:14
Aluminum		39.5	mg/L	0.10	99	70	130			
Antimony		0.000323	mg/L	0.050						
Arsenic		0.000157	mg/L	0.0050						
Barium		0.000191	mg/L	0.10						
Beryllium		4.40E-05	mg/L	0.0010						
Cadmium		0.000434	mg/L	0.0010						
Calcium		112	mg/L	0.50	93	70	130			
Chromium		0.00209	mg/L	0.010						
Cobalt		0.00173	mg/L	0.010						
Copper		0.000443	mg/L	0.010						
Iron		95.3	mg/L	0.030	95	70	130			
Lead		9.40E-05	mg/L	0.010						
Magnesium		41.0	mg/L	0.50	102	70	130			
Manganese		0.00207	mg/L	0.010						
Mercury		3.90E-05	mg/L	0.0010						
Nickel		0.000744	mg/L	0.010						
Potassium		39.9	mg/L	0.50	100	70	130			
Selenium		0.000249	mg/L	0.0050						
Silver		0.000254	mg/L	0.0050						

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICSA	23	Interference Check Sample A								06/24/11 06:14
Sodium		101	mg/L	0.50	101	70	130			
Thallium		5.10E-05	mg/L	0.10						
Vanadium		0.000242	mg/L	0.10						
Zinc		0.00138	mg/L	0.010						
Sample ID: ICSAB	23	Interference Check Sample AB								06/24/11 06:19
Aluminum		38.8	mg/L	0.10	97	70	130			
Antimony		0.000309	mg/L	0.050		0	0			
Arsenic		0.0104	mg/L	0.0050	104	70	130			
Barium		0.000165	mg/L	0.10		0	0			
Beryllium		2.40E-05	mg/L	0.0010		0	0			
Cadmium		0.0103	mg/L	0.0010	103	70	130			
Calcium		109	mg/L	0.50	91	70	130			
Chromium		0.0216	mg/L	0.010	108	70	130			
Cobalt		0.0221	mg/L	0.010	111	70	130			
Copper		0.0201	mg/L	0.010	100	70	130			
Iron		96.9	mg/L	0.030	97	70	130			
Lead		6.40E-05	mg/L	0.010		0	0			
Magnesium		41.1	mg/L	0.50	103	70	130			
Manganese		0.0219	mg/L	0.010	109	70	130			
Mercury		2.60E-05	mg/L	0.0010		0	0			
Nickel		0.0210	mg/L	0.010	105	70	130			
Potassium		39.2	mg/L	0.50	98	70	130			
Selenium		0.00967	mg/L	0.0050	97	70	130			
Silver		0.0197	mg/L	0.0050	99	70	130			
Sodium		103	mg/L	0.50	103	70	130			
Thallium		2.40E-05	mg/L	0.10		0	0			
Vanadium		0.0203	mg/L	0.10	102	70	130			
Zinc		0.0109	mg/L	0.010	109	70	130			
Sample ID: ICV STD	23	Initial Calibration Verification Standard								06/24/11 12:34
Aluminum		0.247	mg/L	0.10	99	90	110			
Antimony		0.0496	mg/L	0.050	99	90	110			
Arsenic		0.0494	mg/L	0.0050	99	90	110			
Barium		0.0491	mg/L	0.10	98	90	110			
Beryllium		0.0252	mg/L	0.0010	101	90	110			
Cadmium		0.0256	mg/L	0.0010	103	90	110			
Calcium		2.52	mg/L	0.50	101	90	110			
Chromium		0.0488	mg/L	0.010	98	90	110			
Cobalt		0.0503	mg/L	0.010	101	90	110			
Copper		0.0513	mg/L	0.010	103	90	110			
Iron		0.271	mg/L	0.030	108	90	110			
Lead		0.0499	mg/L	0.010	100	90	110			
Magnesium		2.52	mg/L	0.50	101	90	110			
Manganese		0.246	mg/L	0.010	98	90	110			

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICV STD		23 Initial Calibration Verification Standard								06/24/11 12:34
Mercury		0.00200	mg/L	0.0010	100	90	110			
Nickel		0.0503	mg/L	0.010	101	90	110			
Potassium		2.42	mg/L	0.50	97	90	110			
Selenium		0.0502	mg/L	0.0050	100	90	110			
Silver		0.0254	mg/L	0.0050	102	90	110			
Sodium		2.51	mg/L	0.50	101	90	110			
Thallium		0.0494	mg/L	0.10	99	90	110			
Vanadium		0.0490	mg/L	0.10	98	90	110			
Zinc		0.0511	mg/L	0.010	102	90	110			
Sample ID: ICSA		23 Interference Check Sample A								06/24/11 12:41
Aluminum		38.5	mg/L	0.10	96	70	130			
Antimony		0.000307	mg/L	0.050						
Arsenic		0.000183	mg/L	0.0050						
Barium		0.000102	mg/L	0.10						
Beryllium		2.70E-05	mg/L	0.0010						
Cadmium		0.000395	mg/L	0.0010						
Calcium		111	mg/L	0.50	93	70	130			
Chromium		0.00203	mg/L	0.010						
Cobalt		0.00169	mg/L	0.010						
Copper		0.000413	mg/L	0.010						
Iron		98.4	mg/L	0.030	98	70	130			
Lead		8.20E-05	mg/L	0.010						
Magnesium		40.1	mg/L	0.50	100	70	130			
Manganese		0.00190	mg/L	0.010						
Mercury		4.60E-05	mg/L	0.0010						
Nickel		0.00102	mg/L	0.010						
Potassium		39.5	mg/L	0.50	99	70	130			
Selenium		0.000180	mg/L	0.0050						
Silver		0.000162	mg/L	0.0050						
Sodium		100	mg/L	0.50	100	70	130			
Thallium		4.40E-05	mg/L	0.10						
Vanadium		0.000201	mg/L	0.10						
Zinc		0.00141	mg/L	0.010						
Sample ID: ICSAB		23 Interference Check Sample AB								06/24/11 12:46
Aluminum		38.7	mg/L	0.10	97	70	130			
Antimony		0.000308	mg/L	0.050		0	0			
Arsenic		0.0103	mg/L	0.0050	103	70	130			
Barium		0.000116	mg/L	0.10		0	0			
Beryllium		2.70E-05	mg/L	0.0010		0	0			
Cadmium		0.00996	mg/L	0.0010	100	70	130			
Calcium		109	mg/L	0.50	91	70	130			
Chromium		0.0213	mg/L	0.010	107	70	130			
Cobalt		0.0219	mg/L	0.010	109	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual			
Method: E200.8						Analytical Run: ICPMS204-B_110622A							
Sample ID: ICSAB	23	Interference Check Sample AB								06/24/11 12:46			
Copper		0.0198	mg/L	0.010	99	70	130						
Iron		97.2	mg/L	0.030	97	70	130						
Lead		6.30E-05	mg/L	0.010		0	0						
Magnesium		40.7	mg/L	0.50	102	70	130						
Manganese		0.0215	mg/L	0.010	107	70	130						
Mercury		2.60E-05	mg/L	0.0010		0	0						
Nickel		0.0207	mg/L	0.010	103	70	130						
Potassium		39.0	mg/L	0.50	98	70	130						
Selenium		0.00986	mg/L	0.0050	99	70	130						
Silver		0.0192	mg/L	0.0050	96	70	130						
Sodium		101	mg/L	0.50	101	70	130						
Thallium		2.60E-05	mg/L	0.10		0	0						
Vanadium		0.0201	mg/L	0.10	101	70	130						
Zinc		0.0111	mg/L	0.010	111	70	130						
Sample ID: ICV STD	23	Initial Calibration Verification Standard								06/25/11 01:24			
Aluminum		0.254	mg/L	0.10	102	90	110						
Antimony		0.0490	mg/L	0.050	98	90	110						
Arsenic		0.0491	mg/L	0.0050	98	90	110						
Barium		0.0494	mg/L	0.10	99	90	110						
Beryllium		0.0251	mg/L	0.0010	100	90	110						
Cadmium		0.0259	mg/L	0.0010	104	90	110						
Calcium		2.48	mg/L	0.50	99	90	110						
Chromium		0.0486	mg/L	0.010	97	90	110						
Cobalt		0.0504	mg/L	0.010	101	90	110						
Copper		0.0506	mg/L	0.010	101	90	110						
Iron		0.263	mg/L	0.030	105	90	110						
Lead		0.0505	mg/L	0.010	101	90	110						
Magnesium		2.48	mg/L	0.50	99	90	110						
Manganese		0.246	mg/L	0.010	98	90	110						
Mercury		0.00198	mg/L	0.0010	99	90	110						
Nickel		0.0502	mg/L	0.010	100	90	110						
Potassium		2.53	mg/L	0.50	101	90	110						
Selenium		0.0511	mg/L	0.0050	102	90	110						
Silver		0.0251	mg/L	0.0050	101	90	110						
Sodium		2.47	mg/L	0.50	99	90	110						
Thallium		0.0498	mg/L	0.10	100	90	110						
Vanadium		0.0488	mg/L	0.10	98	90	110						
Zinc		0.0507	mg/L	0.010	101	90	110						
Sample ID: ICSA	23	Interference Check Sample A								06/25/11 01:29			
Aluminum		39.4	mg/L	0.10	98	70	130						
Antimony		0.000302	mg/L	0.050									
Arsenic		0.000146	mg/L	0.0050									
Barium		9.10E-05	mg/L	0.10									

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110622A		
Sample ID: ICSA	23	Interference Check Sample A								06/25/11 01:29
Beryllium		3.80E-05	mg/L	0.0010						
Cadmium		0.000352	mg/L	0.0010						
Calcium		111	mg/L	0.50	92	70	130			
Chromium		0.00205	mg/L	0.010						
Cobalt		0.00175	mg/L	0.010						
Copper		0.000429	mg/L	0.010						
Iron		98.5	mg/L	0.030	98	70	130			
Lead		8.40E-05	mg/L	0.010						
Magnesium		40.6	mg/L	0.50	101	70	130			
Manganese		0.00180	mg/L	0.010						
Mercury		4.80E-05	mg/L	0.0010						
Nickel		0.00140	mg/L	0.010						
Potassium		40.0	mg/L	0.50	100	70	130			
Selenium		0.000197	mg/L	0.0050						
Silver		0.000201	mg/L	0.0050						
Sodium		101	mg/L	0.50	101	70	130			
Thallium		3.60E-05	mg/L	0.10						
Vanadium		0.000202	mg/L	0.10						
Zinc		0.00140	mg/L	0.010						
Sample ID: ICSAB	23	Interference Check Sample AB								06/25/11 01:34
Aluminum		39.0	mg/L	0.10	98	70	130			
Antimony		0.000302	mg/L	0.050		0	0			
Arsenic		0.0102	mg/L	0.0050	102	70	130			
Barium		9.00E-05	mg/L	0.10		0	0			
Beryllium		2.00E-05	mg/L	0.0010		0	0			
Cadmium		0.0100	mg/L	0.0010	100	70	130			
Calcium		111	mg/L	0.50	92	70	130			
Chromium		0.0217	mg/L	0.010	108	70	130			
Cobalt		0.0219	mg/L	0.010	110	70	130			
Copper		0.0199	mg/L	0.010	100	70	130			
Iron		98.8	mg/L	0.030	99	70	130			
Lead		6.50E-05	mg/L	0.010		0	0			
Magnesium		40.4	mg/L	0.50	101	70	130			
Manganese		0.0210	mg/L	0.010	105	70	130			
Mercury		2.10E-05	mg/L	0.0010		0	0			
Nickel		0.0218	mg/L	0.010	109	70	130			
Potassium		39.4	mg/L	0.50	99	70	130			
Selenium		0.00969	mg/L	0.0050	97	70	130			
Silver		0.0194	mg/L	0.0050	97	70	130			
Sodium		99.5	mg/L	0.50	100	70	130			
Thallium		1.40E-05	mg/L	0.10		0	0			
Vanadium		0.0202	mg/L	0.10	101	70	130			
Zinc		0.0108	mg/L	0.010	108	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 12644
Sample ID: MB-12644	22	Method Blank						Run: ICPMS204-B_110622A		06/24/11 08:18
Aluminum		0.04	mg/L		0.0007					
Antimony		0.0001	mg/L		4E-05					
Arsenic		ND	mg/L		5E-05					
Barium		0.0010	mg/L		9E-05					
Beryllium		ND	mg/L		2E-05					
Cadmium		ND	mg/L		2E-05					
Calcium		0.10	mg/L		0.04					
Chromium		0.00010	mg/L		6E-05					
Cobalt		ND	mg/L		3E-05					
Copper		ND	mg/L		0.0004					
Iron		0.001	mg/L		0.0006					
Lead		2E-05	mg/L		2E-05					
Magnesium		0.02	mg/L		0.003					
Manganese		7E-05	mg/L		6E-05					
Nickel		ND	mg/L		0.0002					
Potassium		ND	mg/L		0.07					
Selenium		ND	mg/L		0.0002					
Silver		ND	mg/L		6E-05					
Sodium		ND	mg/L		0.04					
Thallium		ND	mg/L		2E-05					
Vanadium		0.0002	mg/L		5E-05					
Zinc		0.002	mg/L		0.0003					
Sample ID: LCS-12644	22	Laboratory Control Sample				Run: ICPMS204-B_110622A				06/24/11 08:22
Aluminum		2.48	mg/L	0.10	98	85	115			
Antimony		0.525	mg/L	0.0050	105	85	115			
Arsenic		0.527	mg/L	0.0050	105	85	115			
Barium		0.530	mg/L	0.10	106	85	115			
Beryllium		0.252	mg/L	0.0010	101	85	115			
Cadmium		0.268	mg/L	0.0010	107	85	115			
Calcium		26.7	mg/L	1.0	106	85	115			
Chromium		0.509	mg/L	0.010	102	85	115			
Cobalt		0.494	mg/L	0.010	99	85	115			
Copper		0.517	mg/L	0.010	103	85	115			
Iron		2.56	mg/L	0.030	102	85	115			
Lead		0.524	mg/L	0.010	105	85	115			
Magnesium		26.4	mg/L	1.0	105	85	115			
Manganese		2.45	mg/L	0.010	98	85	115			
Nickel		0.521	mg/L	0.010	104	85	115			
Potassium		25.9	mg/L	1.0	103	85	115			
Selenium		0.520	mg/L	0.0050	104	85	115			
Silver		0.0518	mg/L	0.0050	104	85	115			
Sodium		26.1	mg/L	1.0	104	85	115			
Thallium		0.518	mg/L	0.0050	104	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 12644
Sample ID: LCS-12644	22	Laboratory Control Sample				Run: ICPMS204-B_110622A				06/24/11 08:22
Vanadium		0.514	mg/L	0.10	103	85	115			
Zinc		0.521	mg/L	0.010	104	85	115			
Sample ID: H11060355-002CMS3	22	Sample Matrix Spike				Run: ICPMS204-B_110622A				06/24/11 08:59
Aluminum		5.23	mg/L	0.10	155	70	130			S
Antimony		0.524	mg/L	0.0050	105	70	130			
Arsenic		0.519	mg/L	0.0050	103	70	130			
Barium		0.893	mg/L	0.10	106	70	130			
Beryllium		0.245	mg/L	0.0010	98	70	130			
Cadmium		0.259	mg/L	0.0010	103	70	130			
Calcium		65.4	mg/L	1.0	85	70	130			
Chromium		0.508	mg/L	0.010	101	70	130			
Cobalt		0.499	mg/L	0.010	100	70	130			
Copper		0.506	mg/L	0.010	101	70	130			
Iron		4.15	mg/L	0.030	116	70	130			
Lead		0.519	mg/L	0.010	104	70	130			
Magnesium		36.2	mg/L	1.0	101	70	130			
Manganese		2.60	mg/L	0.010	98	70	130			
Nickel		0.510	mg/L	0.010	102	70	130			
Potassium		28.2	mg/L	1.0	104	70	130			
Selenium		0.509	mg/L	0.0050	102	70	130			
Silver		0.0517	mg/L	0.0050	103	70	130			
Sodium		37.1	mg/L	1.0	102	70	130			
Thallium		0.511	mg/L	0.0050	102	70	130			
Vanadium		0.510	mg/L	0.10	101	70	130			
Zinc		0.515	mg/L	0.010	101	70	130			
Sample ID: H11060355-002CMS3	22	Sample Matrix Spike Duplicate				Run: ICPMS204-B_110622A				06/24/11 09:03
Aluminum		5.24	mg/L	0.10	155	70	130	0.2	20	S
Antimony		0.525	mg/L	0.0050	105	70	130	0.1	20	
Arsenic		0.518	mg/L	0.0050	103	70	130	0.2	20	
Barium		0.894	mg/L	0.10	107	70	130	0.1	20	
Beryllium		0.249	mg/L	0.0010	99	70	130	1.3	20	
Cadmium		0.266	mg/L	0.0010	106	70	130	2.8	20	
Calcium		64.9	mg/L	1.0	83	70	130	0.8	20	
Chromium		0.507	mg/L	0.010	100	70	130	0.3	20	
Cobalt		0.495	mg/L	0.010	99	70	130	0.8	20	
Copper		0.500	mg/L	0.010	99	70	130	1.2	20	
Iron		4.10	mg/L	0.030	114	70	130	1.0	20	
Lead		0.521	mg/L	0.010	104	70	130	0.4	20	
Magnesium		36.9	mg/L	1.0	104	70	130	2.0	20	
Manganese		2.61	mg/L	0.010	98	70	130	0.3	20	
Nickel		0.508	mg/L	0.010	101	70	130	0.4	20	
Potassium		27.7	mg/L	1.0	101	70	130	1.9	20	
Selenium		0.500	mg/L	0.0050	100	70	130	1.9	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 12644
Sample ID: H11060355-002CMSD3	22	Sample Matrix Spike Duplicate				Run: ICPMS204-B_110622A				06/24/11 09:03
Silver		0.0518	mg/L	0.0050	104	70	130	0.3		20
Sodium		37.1	mg/L	1.0	102	70	130	0.1		20
Thallium		0.515	mg/L	0.0050	103	70	130	0.7		20
Vanadium		0.510	mg/L	0.10	101	70	130	0.1		20
Zinc		0.510	mg/L	0.010	100	70	130	1.0		20
Method: E200.8										Batch: R72108
Sample ID: ICB	23	Method Blank				Run: ICPMS204-B_110622A				06/23/11 06:28
Aluminum		ND	mg/L	0.0003						
Antimony		ND	mg/L	7E-06						
Arsenic		ND	mg/L	3E-05						
Barium		ND	mg/L	3E-05						
Beryllium		ND	mg/L	2E-05						
Cadmium		ND	mg/L	1E-05						
Calcium		ND	mg/L	0.003						
Chromium		ND	mg/L	6E-05						
Cobalt		ND	mg/L	9E-06						
Copper		ND	mg/L	3E-05						
Iron		ND	mg/L	0.0002						
Lead		ND	mg/L	1.0E-05						
Magnesium		0.001	mg/L	0.0007						
Manganese		ND	mg/L	1E-05						
Mercury		ND	mg/L	9E-06						
Nickel		ND	mg/L	5E-05						
Potassium		0.02	mg/L	0.010						
Selenium		ND	mg/L	4E-05						
Silver		9E-05	mg/L	3E-05						
Sodium		0.005	mg/L	0.003						
Thallium		ND	mg/L	7E-06						
Vanadium		ND	mg/L	1E-05						
Zinc		0.0008	mg/L	0.0003						
Sample ID: LFB	23	Laboratory Fortified Blank				Run: ICPMS204-B_110622A				06/23/11 06:33
Aluminum		0.0484	mg/L	0.10	97	85	115			
Antimony		0.0492	mg/L	0.050	99	85	115			
Arsenic		0.0484	mg/L	0.0050	97	85	115			
Barium		0.0495	mg/L	0.10	99	85	115			
Beryllium		0.0476	mg/L	0.0010	95	85	115			
Cadmium		0.0480	mg/L	0.0010	96	85	115			
Calcium		44.6	mg/L	0.50	89	85	115			
Chromium		0.0484	mg/L	0.010	97	85	115			
Cobalt		0.0479	mg/L	0.010	96	85	115			
Copper		0.0498	mg/L	0.010	100	85	115			
Iron		4.76	mg/L	0.030	95	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R72108
Sample ID: LFB	23	Laboratory Fortified Blank						Run: ICPMS204-B_110622A		06/23/11 06:33
Lead		0.0497	mg/L	0.010	99	85	115			
Magnesium		46.7	mg/L	0.50	93	85	115			
Manganese		0.0481	mg/L	0.010	96	85	115			
Mercury		0.00104	mg/L	0.0010	104	85	115			
Nickel		0.0476	mg/L	0.010	95	85	115			
Potassium		48.4	mg/L	0.50	97	85	115			
Selenium		0.0484	mg/L	0.0050	97	85	115			
Silver		0.0187	mg/L	0.0050	93	85	115			
Sodium		47.1	mg/L	0.50	94	85	115			
Thallium		0.0497	mg/L	0.10	99	85	115			
Vanadium		0.0484	mg/L	0.10	97	85	115			
Zinc		0.0495	mg/L	0.010	97	85	115			
Sample ID: H11060352-008BMS	23	Sample Matrix Spike						Run: ICPMS204-B_110622A		06/24/11 07:23
Aluminum		0.0487	mg/L	0.10	97	70	130			
Antimony		0.0492	mg/L	0.0050	98	70	130			
Arsenic		0.0500	mg/L	0.0050	100	70	130			
Barium		0.108	mg/L	0.10	94	70	130			
Beryllium		0.0479	mg/L	0.0010	96	70	130			
Cadmium		0.0488	mg/L	0.0010	96	70	130			
Calcium		66.1	mg/L	1.0	82	70	130			
Chromium		0.0490	mg/L	0.010	98	70	130			
Cobalt		0.0487	mg/L	0.010	96	70	130			
Copper		0.0518	mg/L	0.010	103	70	130			
Iron		4.75	mg/L	0.030	95	70	130			
Lead		0.0498	mg/L	0.010	99	70	130			
Magnesium		61.6	mg/L	1.0	94	70	130			
Manganese		1.21	mg/L	0.010		70	130			A
Mercury		0.00102	mg/L	0.0010	102	70	130			
Nickel		0.0503	mg/L	0.010	95	70	130			
Potassium		48.4	mg/L	1.0	95	70	130			
Selenium		0.0489	mg/L	0.0050	98	70	130			
Silver		0.0190	mg/L	0.0050	95	70	130			
Sodium		49.8	mg/L	1.0	97	70	130			
Thallium		0.0496	mg/L	0.0050	99	70	130			
Vanadium		0.0488	mg/L	0.10	98	70	130			
Zinc		0.631	mg/L	0.010		70	130			A
Sample ID: H11060352-008BMSD	23	Sample Matrix Spike Duplicate						Run: ICPMS204-B_110622A		06/24/11 07:46
Aluminum		0.0476	mg/L	0.10	95	70	130			20
Antimony		0.0496	mg/L	0.0050	99	70	130	0.9		20
Arsenic		0.0489	mg/L	0.0050	98	70	130	2.3		20
Barium		0.109	mg/L	0.10	95	70	130	0.6		20
Beryllium		0.0476	mg/L	0.0010	95	70	130	0.6		20
Cadmium		0.0495	mg/L	0.0010	97	70	130	1.4		20

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R72108
Sample ID: H11060352-008BMSD	23	Sample Matrix Spike Duplicate				Run: ICPMS204-B_110622A				06/24/11 07:46
Calcium		65.4	mg/L	1.0	81	70	130	1.2		20
Chromium		0.0485	mg/L	0.010	97	70	130	1.1		20
Cobalt		0.0482	mg/L	0.010	95	70	130	1.1		20
Copper		0.0505	mg/L	0.010	100	70	130	2.7		20
Iron		4.61	mg/L	0.030	92	70	130	2.9		20
Lead		0.0495	mg/L	0.010	99	70	130	0.6		20
Magnesium		60.2	mg/L	1.0	91	70	130	2.2		20
Manganese		1.21	mg/L	0.010		70	130	0.3	20	A
Mercury		0.00100	mg/L	0.0010	100	70	130	2.0		20
Nickel		0.0495	mg/L	0.010	93	70	130	1.7		20
Potassium		47.5	mg/L	1.0	94	70	130	1.8		20
Selenium		0.0478	mg/L	0.0050	96	70	130	2.3		20
Silver		0.0192	mg/L	0.0050	96	70	130	1.0		20
Sodium		48.7	mg/L	1.0	95	70	130	2.3		20
Thallium		0.0497	mg/L	0.0050	99	70	130	0.2		20
Vanadium		0.0483	mg/L	0.10	97	70	130			20
Zinc		0.621	mg/L	0.010		70	130	1.6	20	A
Sample ID: H11060355-009BMS	23	Sample Matrix Spike				Run: ICPMS204-B_110622A				06/24/11 11:17
Aluminum		0.106	mg/L	0.10	96	70	130			
Antimony		0.0487	mg/L	0.0050	97	70	130			
Arsenic		0.0494	mg/L	0.0050	99	70	130			
Barium		0.0529	mg/L	0.10	99	70	130			
Beryllium		0.0502	mg/L	0.0010	100	70	130			
Cadmium		0.0462	mg/L	0.0010	92	70	130			
Calcium		48.7	mg/L	1.0	97	70	130			
Chromium		0.0494	mg/L	0.010	98	70	130			
Cobalt		0.0494	mg/L	0.010	99	70	130			
Copper		0.0507	mg/L	0.010	101	70	130			
Iron		4.65	mg/L	0.030	92	70	130			
Lead		0.0505	mg/L	0.010	101	70	130			
Magnesium		46.4	mg/L	1.0	93	70	130			
Manganese		0.0521	mg/L	0.010	99	70	130			
Mercury		0.00103	mg/L	0.0010	103	70	130			
Nickel		0.0472	mg/L	0.010	94	70	130			
Potassium		49.1	mg/L	1.0	98	70	130			
Selenium		0.0469	mg/L	0.0050	94	70	130			
Silver		0.0191	mg/L	0.0050	95	70	130			
Sodium		46.3	mg/L	1.0	93	70	130			
Thallium		0.0502	mg/L	0.0050	100	70	130			
Vanadium		0.0491	mg/L	0.10	98	70	130			
Zinc		0.0509	mg/L	0.010	98	70	130			
Sample ID: H11060355-009BMSD	23	Sample Matrix Spike Duplicate				Run: ICPMS204-B_110622A				06/24/11 11:22
Aluminum		0.103	mg/L	0.10	91	70	130	2.5		20

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R72108
Sample ID: H11060355-009BMSD	23	Sample Matrix Spike Duplicate				Run: ICPMS204-B_110622A				06/24/11 11:22
Antimony		0.0486	mg/L	0.0050	97	70	130	0.2		20
Arsenic		0.0492	mg/L	0.0050	98	70	130	0.4		20
Barium		0.0527	mg/L	0.10	98	70	130			20
Beryllium		0.0496	mg/L	0.0010	99	70	130	1.3		20
Cadmium		0.0477	mg/L	0.0010	95	70	130	3.2		20
Calcium		47.9	mg/L	1.0	95	70	130	1.8		20
Chromium		0.0492	mg/L	0.010	97	70	130	0.4		20
Cobalt		0.0492	mg/L	0.010	98	70	130	0.3		20
Copper		0.0508	mg/L	0.010	101	70	130	0.1		20
Iron		4.60	mg/L	0.030	91	70	130	1.1		20
Lead		0.0503	mg/L	0.010	100	70	130	0.6		20
Magnesium		46.3	mg/L	1.0	93	70	130	0.1		20
Manganese		0.0513	mg/L	0.010	97	70	130	1.4		20
Mercury		0.00101	mg/L	0.0010	101	70	130	1.7		20
Nickel		0.0474	mg/L	0.010	95	70	130	0.3		20
Potassium		48.5	mg/L	1.0	97	70	130	1.3		20
Selenium		0.0463	mg/L	0.0050	93	70	130	1.2		20
Silver		0.0198	mg/L	0.0050	99	70	130	3.6		20
Sodium		46.7	mg/L	1.0	93	70	130	0.9		20
Thallium		0.0501	mg/L	0.0050	100	70	130	0.3		20
Vanadium		0.0486	mg/L	0.10	97	70	130			20
Zinc		0.0510	mg/L	0.010	98	70	130	0.2		20

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110626A		
Sample ID: ICV STD	3	Initial Calibration Verification Standard								06/26/11 21:27
Aluminum		0.251	mg/L	0.10	101	90	110			
Iron		0.274	mg/L	0.030	110	90	110			
Mercury		0.00207	mg/L	0.0010	104	90	110			
Sample ID: ICSA	3	Interference Check Sample A								06/26/11 21:31
Aluminum		40.7	mg/L	0.10	102	70	130			
Iron		105	mg/L	0.030	105	70	130			
Mercury		3.30E-05	mg/L	0.0010						
Sample ID: ICSAB	3	Interference Check Sample AB								06/26/11 21:36
Aluminum		40.7	mg/L	0.10	102	70	130			
Iron		104	mg/L	0.030	104	70	130			
Mercury		1.80E-05	mg/L	0.0010		0	0			
Sample ID: ICSA	3	Interference Check Sample A								06/27/11 09:59
Aluminum		40.0	mg/L	0.10	100	70	130			
Iron		97.8	mg/L	0.030	98	70	130			
Mercury		4.00E-06	mg/L	0.0010						
Sample ID: ICSAB	3	Interference Check Sample AB								06/27/11 10:04
Aluminum		40.2	mg/L	0.10	101	70	130			
Iron		103	mg/L	0.030	103	70	130			
Mercury		1.00E-06	mg/L	0.0010		0	0			
Sample ID: ICV STD	3	Initial Calibration Verification Standard								06/27/11 13:23
Aluminum		0.252	mg/L	0.10	101	90	110			
Iron		0.256	mg/L	0.030	102	90	110			
Mercury		0.00198	mg/L	0.0010	99	90	110			
Sample ID: ICSA	3	Interference Check Sample A								06/27/11 13:28
Aluminum		40.5	mg/L	0.10	101	70	130			
Iron		94.6	mg/L	0.030	95	70	130			
Mercury		3.60E-05	mg/L	0.0010						
Sample ID: ICSAB	3	Interference Check Sample AB								06/27/11 13:32
Aluminum		39.2	mg/L	0.10	98	70	130			
Iron		99.6	mg/L	0.030	100	70	130			
Mercury		2.00E-05	mg/L	0.0010		0	0			
Sample ID: ICV STD	3	Initial Calibration Verification Standard								06/27/11 23:16
Aluminum		0.252	mg/L	0.10	101	90	110			
Iron		0.267	mg/L	0.030	107	90	110			
Mercury		0.00206	mg/L	0.0010	103	90	110			
Sample ID: ICSA	3	Interference Check Sample A								06/27/11 23:21
Aluminum		40.4	mg/L	0.10	101	70	130			
Iron		99.1	mg/L	0.030	99	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E200.8										Analytical Run: ICPMS204-B_110626A	
Sample ID: ICSA	3	Interference Check Sample A									
Mercury		3.10E-05	mg/L		0.0010					06/27/11 23:21	
Sample ID: ICSAB	3	Interference Check Sample AB									
Aluminum		40.3	mg/L		0.10	101	70	130		06/27/11 23:25	
Iron		104	mg/L		0.030	104	70	130			
Mercury		1.90E-05	mg/L		0.0010		0	0			
Sample ID: ICV STD	3	Initial Calibration Verification Standard									
Aluminum		0.251	mg/L		0.10	101	90	110		06/28/11 04:56	
Iron		0.270	mg/L		0.030	108	90	110			
Mercury		0.00203	mg/L		0.0010	102	90	110			
Sample ID: ICSA	3	Interference Check Sample A									
Aluminum		40.1	mg/L		0.10	100	70	130		06/28/11 05:00	
Iron		99.3	mg/L		0.030	99	70	130			
Mercury		2.50E-05	mg/L		0.0010		0	0			
Sample ID: ICSAB	3	Interference Check Sample AB									
Aluminum		39.7	mg/L		0.10	99	70	130		06/28/11 05:05	
Iron		102	mg/L		0.030	102	70	130			
Mercury		1.70E-05	mg/L		0.0010		0	0			
Method: E200.8										Batch: 12644	
Sample ID: MB-12644	22	Method Blank									
Aluminum		0.03	mg/L		0.0007					Run: ICPMS204-B_110626A	
Antimony		ND	mg/L		4E-05					06/28/11 02:35	
Arsenic		ND	mg/L		5E-05						
Barium		0.0009	mg/L		9E-05						
Beryllium		ND	mg/L		2E-05						
Cadmium		ND	mg/L		2E-05						
Calcium		0.10	mg/L		0.04						
Chromium		9E-05	mg/L		6E-05						
Cobalt		ND	mg/L		3E-05						
Copper		ND	mg/L		0.0004						
Iron		0.001	mg/L		0.0006						
Lead		ND	mg/L		2E-05						
Magnesium		0.03	mg/L		0.003						
Manganese		ND	mg/L		6E-05						
Nickel		ND	mg/L		0.0002						
Potassium		ND	mg/L		0.07						
Selenium		ND	mg/L		0.0002						
Silver		ND	mg/L		6E-05						
Sodium		0.1	mg/L		0.04						
Thallium		ND	mg/L		2E-05						
Vanadium		0.0002	mg/L		5E-05						
Zinc		0.002	mg/L		0.0003						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 12644
Sample ID: MB-12644	22	Method Blank								Run: ICPMS204-B_110626A 06/28/11 02:35
Method: E200.8										Batch: R72189
Sample ID: ICB	3	Method Blank								Run: ICPMS204-B_110626A 06/26/11 22:03
Aluminum		0.0006	mg/L			0.0003				
Iron		0.001	mg/L			0.0002				
Mercury		ND	mg/L			9E-06				
Sample ID: LFB	3	Laboratory Fortified Blank								Run: ICPMS204-B_110626A 06/26/11 22:08
Aluminum		0.0472	mg/L		0.10	93	85	115		
Iron		4.64	mg/L		0.030	93	85	115		
Mercury		0.00106	mg/L		0.0010	106	85	115		
Sample ID: H11060468-005AMS	3	Sample Matrix Spike								Run: ICPMS204-B_110626A 06/28/11 00:33
Aluminum		0.0470	mg/L		0.10	93	70	130		
Iron		4.68	mg/L		0.030	93	70	130		
Mercury		0.00101	mg/L		0.0010	98	70	130		
Sample ID: H11060468-005AMSD	3	Sample Matrix Spike Duplicate								Run: ICPMS204-B_110626A 06/28/11 00:38
Aluminum		0.0458	mg/L		0.10	91	70	130		20
Iron		4.92	mg/L		0.030	98	70	130	5.0	20
Mercury		0.00106	mg/L		0.0010	103	70	130	5.3	20
Sample ID: MB-12592	3	Method Blank								Run: ICPMS204-B_110626A 06/28/11 01:09
Aluminum		0.009	mg/L		0.0003					
Iron		0.008	mg/L		0.0002					
Mercury		ND	mg/L		9E-06					

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_110628A		
Sample ID: ICV STD		Initial Calibration Verification Standard								06/28/11 11:13
Aluminum		0.250	mg/L	0.10	100	90	110			
Sample ID: ICSA		Interference Check Sample A								06/28/11 11:17
Aluminum		38.3	mg/L	0.10	96	70	130			
Sample ID: ICSAB		Interference Check Sample AB								06/28/11 11:22
Aluminum		38.7	mg/L	0.10	97	70	130			
Sample ID: ICV STD		Initial Calibration Verification Standard								06/29/11 00:24
Aluminum		0.251	mg/L	0.10	101	90	110			
Sample ID: ICSA		Interference Check Sample A								06/29/11 00:28
Aluminum		39.4	mg/L	0.10	99	70	130			
Sample ID: ICSAB		Interference Check Sample AB								06/29/11 00:33
Aluminum		38.6	mg/L	0.10	97	70	130			
Sample ID: ICSA		Interference Check Sample A								06/29/11 11:39
Aluminum		37.8	mg/L	0.10	94	70	130			
Sample ID: ICSAB		Interference Check Sample AB								06/29/11 11:44
Aluminum		37.4	mg/L	0.10	94	70	130			
Sample ID: ICV STD		Initial Calibration Verification Standard								06/29/11 20:39
Aluminum		0.258	mg/L	0.10	103	90	110			
Sample ID: ICSA		Interference Check Sample A								06/29/11 20:44
Aluminum		39.1	mg/L	0.10	98	70	130			
Sample ID: ICSAB		Interference Check Sample AB								06/29/11 20:48
Aluminum		38.4	mg/L	0.10	96	70	130			
Method: E200.8								Batch: 12741		
Sample ID: MB-12741		Method Blank								06/29/11 23:24
Aluminum		0.002	mg/L	0.0007				Run: ICPMS204-B_110628A		
Sample ID: LCS-12741		Laboratory Control Sample								06/29/11 23:29
Aluminum		2.40	mg/L	0.10	96	85	115			
Sample ID: H11060448-001BMS3		Sample Matrix Spike								06/30/11 00:47
Aluminum		5.59	mg/L	0.10	106	70	130			
Sample ID: H11060448-001BMSD3		Sample Matrix Spike Duplicate								06/30/11 00:51
Aluminum		5.61	mg/L	0.10	106	70	130	0.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual			
Method: E245.7										Analytical Run: SUB-C147396			
Sample ID: IPR				Initial Calibration Verification Standard									06/27/11 13:00
Mercury		10.4	ng/L	5.0	104	74.3	118						
Sample ID: ICB				Initial Calibration Blank, Instrument Blank									06/27/11 12:58
Mercury		-2.65	ng/L	5.0		0	0						
Sample ID: OPR				Continuing Calibration Verification Standard									06/27/11 13:58
Mercury		8.79	ng/L	5.0	88	68.6	121						
Sample ID: OPR				Continuing Calibration Verification Standard									06/27/11 14:53
Mercury		9.32	ng/L	5.0	93	68.6	121						
Sample ID: OPR				Continuing Calibration Verification Standard									06/27/11 14:24
Mercury		8.65	ng/L	5.0	86	68.6	121						
Method: E245.7											Batch: C_30276		
Sample ID: H11060326-001A				Sample Matrix Spike									06/27/11 13:19
Mercury		17.2	ng/L	5.0	52	43.3	124						
Sample ID: H11060326-001A				Sample Matrix Spike Duplicate									06/27/11 13:12
Mercury		17.0	ng/L	5.0	51	43.4	124	0.7	12.3				
Sample ID: LCS-30276				Laboratory Control Sample									06/27/11 13:05
Mercury		23.2	ng/L	5.0	93	78.7	116						
Sample ID: MB-30276				Method Blank									06/27/11 13:02
Mercury		ND	ng/L	0.6									
Sample ID: H11060355-006D				Sample Matrix Spike Duplicate									06/27/11 13:53
Mercury		11.3	ng/L	5.0	83	43.4	124	3.8	12.3				
Sample ID: H11060355-006D				Sample Matrix Spike									06/27/11 13:50
Mercury		11.7	ng/L	5.0	88	43.3	124						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Report Date: 07/18/11

Project: UBMC

Work Order: H11060355

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Analytical Run: IC102-H_110622A
Sample ID: ICV062211-12	2	Initial Calibration Verification Standard								06/22/11 13:50
Chloride		110	mg/L	1.0	106	90	110			
Sulfate		410	mg/L	1.0	102	90	110			
Sample ID: CCV062211-15	2	Continuing Calibration Verification Standard								06/22/11 14:25
Chloride		100	mg/L	1.0	103	90	110			
Sulfate		400	mg/L	1.0	101	90	110			
Sample ID: CCV062211-30	2	Continuing Calibration Verification Standard								06/22/11 17:19
Chloride		100	mg/L	1.0	102	90	110			
Sulfate		400	mg/L	1.0	101	90	110			
Method: E300.0										Batch: R72107
Sample ID: ICB062211-13	2	Method Blank								Run: IC102-H_110622A 06/22/11 14:01
Chloride		ND	mg/L		0.02					
Sulfate		ND	mg/L		0.02					
Sample ID: LFB062211-14	2	Laboratory Fortified Blank								Run: IC102-H_110622A 06/22/11 14:13
Chloride		50	mg/L	1.0	101	90	110			
Sulfate		190	mg/L	1.1	97	90	110			
Sample ID: H11060353-003AMS	2	Sample Matrix Spike								Run: IC102-H_110622A 06/22/11 16:32
Chloride		200	mg/L	1.0	84	90	110			S
Sulfate		1000	mg/L	1.1		90	110			A
Sample ID: H11060353-003AMSD	2	Sample Matrix Spike Duplicate								Run: IC102-H_110622A 06/22/11 16:44
Chloride		210	mg/L	1.0	112	90	110	6.9	20	S
Sulfate		1100	mg/L	1.1		90	110	3.4	20	A
Sample ID: H11060355-007AMS	2	Sample Matrix Spike								Run: IC102-H_110622A 06/22/11 18:40
Chloride		53	mg/L	1.0	103	90	110			
Sulfate		200	mg/L	1.1	99	90	110			
Sample ID: H11060355-007AMSD	2	Sample Matrix Spike Duplicate								Run: IC102-H_110622A 06/22/11 18:51
Chloride		54	mg/L	1.0	105	90	110	1.5	20	
Sulfate		210	mg/L	1.1	101	90	110	1.7	20	

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist



MT DEQ-Site Response

H11060355

Login completed by: Wanda Johnson

Date Received: 6/17/2011

Reviewed by: BL2000\ablackburn

Received by: elm

Reviewed Date: 6/22/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	1.5°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

Raw container for UBMCTDMW07 was labeled as UBMCTDM010T. However, it was in the bag with the metals container labeled date & time correctly. A. Dreesbach stated bottle was mis-labeled & use the original label name. Wj 6/21/11

Company Name:
MDEQ-RPSProject Name, PWS, Permit, Etc.
Baseline GroundwaterReport Mail Address:
**Shallie
Holland**Invoice Address:
Quincy H-645

PLEASE PRINT (Provide as much information as possible.)

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

Project Name, PWS, Permit, Etc.
Baseline GroundwaterPhone/Fax:
941-5033Email:
Shallie.Holland@mrps.michigan.govInvoice Contact & Phone:
Purchase Order/Quote/Bottle Order:**Special Report/Formats:**

- DW EDD/EDT(Electronic Data)
 POTWWTP Format:
 State: LEVEL IV
 Other: NELAC

ANALYSIS REQUESTED			
Number of Containers Sample Type: A W S V B O DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water			
SEE ATTACHED			
Standard Turnaround (TAT)			
R U S H			

Contact ELL prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Shipped by: **UPS**
Cooler ID(s): **✓**
Comments: **plastic**
On Ice: **✓**
Receipt Temp: **15°C**

Comments: **plastic**
On Ice: **✓**
Receipt Temp: **15°C**

Custody Seal **✓**
On Bottle **Y**
On Cooler **N**
Intact **Y**
Signature **Y**
Match **N**

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1. 535Mw01	6/14/11	1550	W
2. 535Mw02	6/16/11	1750	✓ baseline groundwater
3. 535Mw04	6/14/11	1834	✓
4. 535Mw07	6/16/11	1834	✓
5. 535Mw08	6/17/11	0718	✓
6. 535Mw06	6/17/11	0915	✓
7. 535Mw02	6/17/11	1054	✓
8. 535Mw05	6/17/11	1054	✓
9. 535Mw09	6/17/11	1105	W
10. _____	_____	_____	6/12/11 NO
Custody Record Must be Signed			
Retained by (print): Plan Bressack Signature: 6/17/11/406 Retained by (print): Shallie Holland Signature: 6/17/11/406			
Received by (print): ✓ Date/Time: 6/17/11 14:06 Signature: ✓			
Received by (print): ✓ Date/Time: 6/17/11 14:06 Signature: ✓			
LABORATORY USE ONLY			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Received by Laboratory: **✓** Date/Time: **6/17/11 14:06** Signature: **✓**
Received by Laboratory: **✓** Date/Time: **6/17/11 14:06** Signature: **✓**

Sample Disposal: Return to Client: **✓** Lab Disposal: **✓** Lab Disposal: **✓**

Quotation for Analytical Services # H645

Company: MT DEQ-Site Response Submitted By:
 Contact: Shellie Haaland Project: UBMC
 Address: PO Box 200901 TAT: 10 Working days
 Helena, MT 59620-0901 QC Level: LVL4
 Phone: (406) 841-5033 Fax: Quote Date: 30-Apr-11 Expires: 31-Dec-12

Matrix	Test Name	Test	Remarks	# Samp	Unit Price	Test Total
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Schedule: UBMC Surface Water Section 35 Baseline

Schedule Sample Price: \$425.00
 Schedule Total: \$425.00

Schedule: UBMC Ground Water Section 35 Baseline

Aqueous	Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1	\$15.00
	Alkalinity	A2320 B		1	\$10.00	1	\$10.00
	Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
	Conductivity	A2510 B		1	\$10.00	1	\$10.00
	Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
	Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
	pH	A4500-H B		1	\$10.00	1	\$10.00
	Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1	\$15.00
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$200.00	1	\$200.00
	Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$200.00	1	\$200.00
	Mercury, Total	E245.7	Only used if can not be achieved by other methods.	1	\$50.00	1	\$50.00
	Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1	\$20.00

Schedule Sample Price: \$560.00
 Schedule Total: \$560.00

Schedule: Sediment

	Metals by ICP/ICPMS, Total	E6010.20		1	\$80.00	1	\$80.00
	Digestion, Total Metals	SW3050 B		1	\$25.00	1	\$25.00

Schedule Sample Price: \$105.00
 Schedule Total: \$105.00

Quote Comments:	Shipping Labels provided at 12.00 a cooler by UPS or FED EX.	Quote Sub Total:	\$1,680.00
		Misc:	\$0.00
		Discount:	30.00%
		WO Adjustment:	\$0.00
		QUOTE TOTAL:	\$1,176.00

General Comments: Price per sampling event. Sampling to be completed by Portage Inc. 1065 N Ewing Helena, MT 406-457-0056

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents .

* Methods and/or parameters included in the indicated test group.
 Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<i>UBMC Ground Water Section 35 Baseline</i>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
✓ Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
✓ Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
✓ Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.05	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
Metals by ICP/ICPMS, Tot. Rec.	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

October 12, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11090332 Quote ID: H645 - UBMC

Project Name: Section 35 Baseline Surface Water

Energy Laboratories Inc Helena MT received the following 7 samples for MT DEQ-Site Response on 9/20/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11090332-001	S35SW05	09/19/11 9:55	09/20/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090332-002	S35SW01	09/19/11 11:15	09/20/11	Aqueous	Same As Above
H11090332-003	S35SW06	09/19/11 11:20	09/20/11	Aqueous	Same As Above
H11090332-004	S35SW02	09/19/11 13:00	09/20/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090332-005	S35SW04	09/19/11 14:10	09/20/11	Aqueous	Same As Above
H11090332-006	S35SW03	09/19/11 14:45	09/20/11	Aqueous	Same As Above
H11090332-007	TB2004091311 EM	09/19/11 9:55	09/20/11	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: Section 35 Baseline Surface Water
Sample Delivery Group: H11090332

Report Date: 10/12/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW05

Lab ID: H11090332-001

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 09:55

DateReceived: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 15		R74602
Conductivity	177	umhos/cm		1		A2510 B	09/21/11 10:17 / cm		COND_110921A : 12	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:40 / cm	09/21/11 12:56 -124 (14410200)_110921A : 8			13958
Solids, Total Dissolved TDS @ 180 C	116	mg/L		10		A2540 C	09/21/11 13:54 / cm	09/21/11 13:03 -124 (14410200)_110921B : 6			13960
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 14		R74602
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 14		R74602
Carbonate as CO3	ND	mg/L		4		A2320 B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 14		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 15:55 / zeg		IC101-H_110927A : 31		R74774
Sulfate	3	mg/L		1		E300.0	09/27/11 15:55 / zeg		IC101-H_110927A : 31		R74774
Hardness as CaCO3	97	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 3		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Calcium	23	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Magnesium	10	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	0.06	mg/L		0.03		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Barium	0.163	mg/L		0.005		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Calcium	24	mg/L		1		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Copper	0.001	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Iron	0.14	mg/L		0.03		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11090332-001
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 09:55 **DateReceived:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Magnesium	11	mg/L		1	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Manganese	0.015	mg/L		0.005	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Mercury	ND	mg/L		0.00001	E245.1		10/11/11 15:50 / eli-b	10/10/11 08:30	SUB-B173958 : 8	B_57684	
Nickel	ND	mg/L		0.01	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Potassium	ND	mg/L		1	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Selenium	ND	mg/L		0.001	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Silver	ND	mg/L		0.0005	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Sodium	2	mg/L		1	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Thallium	ND	mg/L		0.0002	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Vanadium	ND	mg/L		0.1	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Zinc	ND	mg/L		0.01	E200.8		09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11090332-002
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 11:15 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 17		R74602
Conductivity	181	umhos/cm		1		A2510 B	09/21/11 10:18 / cm		COND_110921A : 13	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 124 (14410200)_110921A : 10			13958
Solids, Total Dissolved TDS @ 180 C	140	mg/L		10		A2540 C	09/21/11 13:54 / cm	09/21/11 13:03 -124 (14410200)_110921B : 8			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	110	mg/L		4		A2320 B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 16		R74602
Bicarbonate as HCO ₃	140	mg/L		4		A2320 B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 16		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 16		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 17:02 / zeg		IC101-H_110927A : 36		R74774
Sulfate	ND	mg/L		1		E300.0	09/27/11 17:02 / zeg		IC101-H_110927A : 36		R74774
Hardness as CaCO ₃	102	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 4		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Calcium	27	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Magnesium	8	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	0.03	mg/L		0.03		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Barium	0.197	mg/L		0.005		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Calcium	27	mg/L		1		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Copper	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Iron	0.14	mg/L		0.03		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW01

Lab ID: H11090332-002

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 11:15

DateReceived: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Magnesium	9	mg/L		1	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Manganese	0.007	mg/L		0.005	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Mercury	ND	mg/L		0.00001	E245.1		10/11/11 15:35 / eli-b	10/10/11 08:30	SUB-B173958 : 7		B_57684
Nickel	ND	mg/L		0.01	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Potassium	ND	mg/L		1	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Selenium	ND	mg/L		0.001	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Silver	ND	mg/L		0.0005	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Sodium	2	mg/L		1	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Thallium	ND	mg/L		0.0002	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Vanadium	ND	mg/L		0.1	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Zinc	ND	mg/L		0.01	E200.8		09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11090332-003
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 11:20 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 19		R74602
Conductivity	182	umhos/cm		1		A2510 B	09/21/11 10:21 / cm		COND_110921A : 14	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 124 (14410200)_110921A : 11			13958
Solids, Total Dissolved TDS @ 180 C	129	mg/L		10		A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 124 (14410200)_110921B : 10			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	110	mg/L		4		A2320 B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 18		R74602
Bicarbonate as HCO ₃	140	mg/L		4		A2320 B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 18		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 18		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 17:15 / zeg		IC101-H_110927A : 37		R74774
Sulfate	ND	mg/L		1		E300.0	09/27/11 17:15 / zeg		IC101-H_110927A : 37		R74774
Hardness as CaCO ₃	102	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 5		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Calcium	27	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Magnesium	8	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Barium	0.202	mg/L		0.005		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Calcium	27	mg/L		1		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Copper	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Iron	0.15	mg/L		0.03		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW06

Lab ID: H11090332-003

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 11:20

DateReceived: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Magnesium	9	mg/L		1	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Manganese	0.006	mg/L		0.005	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Mercury	ND	mg/L		0.00001	E245.1		10/11/11 15:45 / eli-b	10/10/11 08:30	SUB-B173958 : 6		B_57684
Nickel	ND	mg/L		0.01	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Potassium	ND	mg/L		1	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Selenium	ND	mg/L		0.001	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Silver	ND	mg/L		0.0005	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Sodium	2	mg/L		1	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Thallium	ND	mg/L		0.0002	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Vanadium	ND	mg/L		0.1	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Zinc	ND	mg/L		0.01	E200.8		09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11090332-004
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 13:00 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	09/21/11 16:11 / zeg		MAN-TECH_110921B : 23		R74602
Conductivity	128	umhos/cm		1		A2510 B	09/21/11 10:22 / cm		COND_110921A : 15	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 124 (14410200)_110921A : 12			13958
Solids, Total Dissolved TDS @ 180 C	97	mg/L		10		A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 124 (14410200)_110921B : 11			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	77	mg/L		4		A2320 B	09/21/11 16:11 / zeg		MAN-TECH_110921B : 22		R74602
Bicarbonate as HCO ₃	94	mg/L		4		A2320 B	09/21/11 16:11 / zeg		MAN-TECH_110921B : 22		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 16:11 / zeg		MAN-TECH_110921B : 22		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 17:29 / zeg		IC101-H_110927A : 38		R74774
Sulfate	1	mg/L		1		E300.0	09/27/11 17:29 / zeg		IC101-H_110927A : 38		R74774
Hardness as CaCO ₃	69	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 6		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:27 / sld		ICP2-HE_110923B : 95		R74680
Calcium	17	mg/L		1		E200.7	09/23/11 17:27 / sld		ICP2-HE_110923B : 95		R74680
Magnesium	6	mg/L		1		E200.7	09/23/11 17:27 / sld		ICP2-HE_110923B : 95		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:27 / sld		ICP2-HE_110923B : 95		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:27 / sld		ICP2-HE_110923B : 95		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Barium	0.117	mg/L		0.005		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Calcium	17	mg/L		1		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Copper	0.001	mg/L		0.001		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Iron	0.14	mg/L		0.03		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW02

Lab ID: H11090332-004

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 13:00

DateReceived: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Magnesium	7	mg/L		1	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Manganese	0.022	mg/L		0.005	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Mercury	ND	mg/L		0.00001	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Nickel	ND	mg/L		0.01	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Potassium	ND	mg/L		1	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Selenium	ND	mg/L		0.001	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Silver	ND	mg/L		0.0005	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Sodium	2	mg/L		1	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Thallium	ND	mg/L		0.0002	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Vanadium	ND	mg/L		0.1	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Zinc	ND	mg/L		0.01	E200.8		09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11090332-005
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 14:10 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 25		R74602
Conductivity	209	umhos/cm		1		A2510 B	09/21/11 11:08 / cm		COND_110921A : 16	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 124 (14410200)_110921A : 13			13958
Solids, Total Dissolved TDS @ 180 C	140	mg/L		10		A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 124 (14410200)_110921B : 12			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	79	mg/L		4		A2320 B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 24		R74602
Bicarbonate as HCO ₃	97	mg/L		4		A2320 B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 24		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 24		R74602
Chloride	2	mg/L		1		E300.0	09/27/11 17:42 / zeg		IC101-H_110927A : 39		R74774
Sulfate	31	mg/L		1		E300.0	09/27/11 17:42 / zeg		IC101-H_110927A : 39		R74774
Hardness as CaCO ₃	107	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 7		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Calcium	25	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Magnesium	11	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Sodium	3	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Antimony	ND	mg/L		0.003		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Barium	0.187	mg/L		0.005		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Cadmium	0.00016	mg/L		0.00008		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Calcium	25	mg/L		1		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Chromium	ND	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Copper	0.001	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Iron	0.05	mg/L		0.03		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW04

Lab ID: H11090332-005

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 14:10

DateReceived: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Magnesium	12	mg/L		1	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Manganese	ND	mg/L		0.005	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Mercury	0.00002	mg/L		0.00001	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Nickel	ND	mg/L		0.01	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Potassium	ND	mg/L		1	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Selenium	ND	mg/L		0.001	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Silver	ND	mg/L		0.0005	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Sodium	3	mg/L		1	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Thallium	ND	mg/L		0.0002	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Vanadium	ND	mg/L		0.1	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Zinc	0.06	mg/L		0.01	E200.8		09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW03

Lab ID: H11090332-006

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 14:45

DateReceived: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 27		R74602
Conductivity	209	umhos/cm		1		A2510 B	09/21/11 11:09 / cm		COND_110921A : 17	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:42 / cm	09/21/11 12:56 124 (14410200)_110921A : 14			13958
Solids, Total Dissolved TDS @ 180 C	142	mg/L		10		A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 124 (14410200)_110921B : 13			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	80	mg/L		4		A2320 B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 26		R74602
Bicarbonate as HCO ₃	97	mg/L		4		A2320 B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 26		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 26		R74602
Chloride	2	mg/L		1		E300.0	09/27/11 17:56 / zeg		IC101-H_110927A : 40		R74774
Sulfate	31	mg/L		1		E300.0	09/27/11 17:56 / zeg		IC101-H_110927A : 40		R74774
Hardness as CaCO ₃	107	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 8		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Calcium	25	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Magnesium	11	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Sodium	3	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Antimony	ND	mg/L		0.003		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Barium	0.194	mg/L		0.005		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Cadmium	0.00017	mg/L		0.00008		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Calcium	25	mg/L		1		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Chromium	ND	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Copper	0.001	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Iron	0.06	mg/L		0.03		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11090332-006
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 14:45 **DateReceived:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Magnesium	12	mg/L		1	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Manganese	0.006	mg/L		0.005	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Mercury	ND	mg/L		0.00001	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Nickel	ND	mg/L		0.01	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Potassium	ND	mg/L		1	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Selenium	ND	mg/L		0.001	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Silver	ND	mg/L		0.0005	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Sodium	3	mg/L		1	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Thallium	ND	mg/L		0.0002	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Vanadium	ND	mg/L		0.1	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Zinc	0.06	mg/L		0.01	E200.8		09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 110921A-COND-PROBE

Run ID :Run Order:	COND_110921A: 6	SampType:	Initial Calibration Verification Standard				Sample ID:	ICV1_110921A			Method:	A2510 B
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Analysis Date:	09/21/11 10:12	Units:	umhos/cm				Prep Info:	Prep Date:				Prep Method:
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Conductivity		1020	1.0	1000		102	90	110				
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Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order:	COND_110921A: 9	SampType:	Sample Duplicate				Sample ID:	H11090328-001ADUP			Method:	A2510 B
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Analysis Date:	09/21/11 10:15	Units:	umhos/cm				Prep Info:	Prep Date:				Prep Method:
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Conductivity		754	1.0				749.3		0.6	10		
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Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order:	COND_110921A: 20	SampType:	Sample Duplicate				Sample ID:	H11090333-002ADUP			Method:	A2510 B
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Analysis Date:	09/21/11 11:11	Units:	umhos/cm				Prep Info:	Prep Date:				Prep Method:
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Conductivity		282	1.0				276		2.2	10		
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Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order:	COND_110921A: 32	SampType:	Sample Duplicate				Sample ID:	H11090337-001ADUP			Method:	A2510 B
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Analysis Date:	09/21/11 11:20	Units:	umhos/cm				Prep Info:	Prep Date:				Prep Method:
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Conductivity		1600	1.0				1604		0.4	10		
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Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 13914

	Run ID :Run Order: ICPMS204-B_110923B: 143	SampType: Method Blank	Sample ID: MB-13914				Method: E200.8				
Analysis Date: 09/24/11 11:53	Units: mg/L		Prep Info:	Prep Date: 9/19/2011			Prep Method: E200.2				
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.007	0.0007									
Antimony	6E-05	4E-05									
Arsenic	ND	5E-05									
Barium	ND	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	ND	6E-05									
Cobalt	ND	3E-05									
Copper	ND	0.0004									
Iron	0.002	0.0006									
Lead	3E-05	2E-05									
Magnesium	ND	0.003									
Manganese	ND	6E-05									
Nickel	ND	0.0002									
Potassium	ND	0.07									
Selenium	ND	0.0002									
Silver	ND	6E-05									
Sodium	ND	0.04									
Thallium	ND	2E-05									
Vanadium	6E-05	5E-05									
Zinc	0.001	0.0003									

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C

	Run ID :Run Order: ICPMS204-B_110923B: 144	SampType: Laboratory Control Sample	Sample ID: LCS-13914				Method: E200.8				
Analysis Date: 09/24/11 11:58	Units: mg/L		Prep Info:	Prep Date: 9/19/2011			Prep Method: E200.2				
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.37	0.10	2.5	0.007213	95	85	115				
Antimony	0.495	0.0050	0.5	0.0000618	99	85	115				
Arsenic	0.510	0.0050	0.5		102	85	115				
Barium	0.468	0.10	0.5		94	85	115				
Beryllium	0.257	0.0010	0.25		103	85	115				
Cadmium	0.232	0.0010	0.25		93	85	115				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 13914

Run ID :Run Order: ICPMS204-B_110923B: 144		SampType: Laboratory Control Sample			Sample ID: LCS-13914			Method: E200.8				
Analysis Date: 09/24/11 11:58		Units: mg/L			Prep Info:		Prep Date: 9/19/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		26.6	1.0	25		106	85	115				
Chromium		0.501	0.010	0.5		100	85	115				
Cobalt		0.484	0.010	0.5		97	85	115				
Copper		0.496	0.010	0.5		99	85	115				
Iron		2.54	0.030	2.5	0.002394	102	85	115				
Lead		0.478	0.010	0.5	0.0000266	96	85	115				
Magnesium		25.5	1.0	25		102	85	115				
Manganese		2.39	0.010	2.5		96	85	115				
Nickel		0.501	0.010	0.5		100	85	115				
Potassium		25.5	1.0	25		102	85	115				
Selenium		0.519	0.0050	0.5		104	85	115				
Silver		0.0509	0.0050	0.05		102	85	115				
Sodium		25.0	1.0	25		100	85	115				
Thallium		0.492	0.0050	0.5		98	85	115				
Vanadium		0.505	0.10	0.5	0.0000602	101	85	115				
Zinc		0.508	0.010	0.5	0.001064	101	85	115				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C

Run ID :Run Order: ICPMS204-B_110923B: 211		SampType: Sample Matrix Spike			Sample ID: H11090324-002DMS3			Method: E200.8				
Analysis Date: 09/24/11 18:29		Units: mg/L			Prep Info:		Prep Date: 9/21/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		5.65	0.10	5	0.4326	104	70	130				
Antimony		1.02	0.0050	1		102	70	130				
Arsenic		1.02	0.0050	1		102	70	130				
Barium		2.94	0.10	1	2.099	85	70	130				
Beryllium		0.496	0.0010	0.5		99	70	130				
Cadmium		0.520	0.0010	0.5	0.00017	104	70	130				
Calcium		72.4	1.0	50	17.81	109	70	130				
Chromium		1.01	0.010	1	0.000724	101	70	130				
Cobalt		1.01	0.010	1	0.000342	101	70	130				
Copper		1.02	0.010	1	0.005287	101	70	130				
Iron		5.78	0.030	5	0.5339	105	70	130				
Lead		1.02	0.010	1	0.005454	101	70	130				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT
Prepared by Helena, MT Branch

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 13914

Run ID :Run Order: ICPMS204-B_110923B: 211 SampType: Sample Matrix Spike Sample ID: H11090324-002DMS3 Method: E200.8

Analysis Date: 09/24/11 18:29 Units: mg/L Prep Info: Prep Date: 9/21/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	61.6	1.0	50	10.06	103	70	130				
Manganese	4.87	0.010	5	0.01085	97	70	130				
Nickel	1.01	0.010	1		101	70	130				
Potassium	57.6	1.0	50	4.803	106	70	130				
Selenium	1.01	0.0050	1		101	70	130				
Silver	0.0888	0.0050	0.1		89	70	130				
Sodium	753	1.0	50	697.1		70	130				A
Thallium	1.01	0.0050	1		101	70	130				
Vanadium	1.02	0.10	1	0.000576	102	70	130				
Zinc	2.73	0.010	1	1.671	106	70	130				

Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Run ID :Run Order: ICPMS204-B_110923B: 212 SampType: Sample Matrix Spike Duplicate Sample ID: H11090324-002DMSD3 Method: E200.8

Analysis Date: 09/24/11 18:34 Units: mg/L Prep Info: Prep Date: 9/21/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5.97	0.10	5	0.4326	111	70	130	5.651	5.6	20	
Antimony	1.06	0.0050	1		106	70	130	1.019	4.1	20	
Arsenic	1.02	0.0050	1		102	70	130	1.023	0.8	20	
Barium	2.99	0.10	1	2.099	89	70	130	2.945	1.5	20	
Beryllium	0.520	0.0010	0.5		104	70	130	0.4959	4.6	20	
Cadmium	0.538	0.0010	0.5	0.00017	108	70	130	0.5201	3.4	20	
Calcium	73.5	1.0	50	17.81	111	70	130	72.44	1.4	20	
Chromium	1.01	0.010	1	0.000724	101	70	130	1.013	0.7	20	
Cobalt	1.08	0.010	1	0.000342	107	70	130	1.014	5.8	20	
Copper	1.00	0.010	1	0.005287	100	70	130	1.02	1.7	20	
Iron	5.52	0.030	5	0.5339	100	70	130	5.781	4.7	20	
Lead	1.05	0.010	1	0.005454	105	70	130	1.016	3.5	20	
Magnesium	60.0	1.0	50	10.06	100	70	130	61.59	2.5	20	
Manganese	5.18	0.010	5	0.01085	103	70	130	4.874	6.1	20	
Nickel	0.996	0.010	1		100	70	130	1.008	1.2	20	
Potassium	57.4	1.0	50	4.803	105	70	130	57.62	0.3	20	
Selenium	0.976	0.0050	1		98	70	130	1.012	3.6	20	
Silver	0.100	0.0050	0.1		100	70	130	0.0888	12	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 13914

Run ID :Run Order: ICPMS204-B_110923B: 212		SampType: Sample Matrix Spike Duplicate			Sample ID: H11090324-002DMSD3				Method: E200.8			
Analysis Date: 09/24/11 18:34		Units: mg/L			Prep Info:		Prep Date: 9/21/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		737	1.0	50	697.1		70	130	753.2	2.1	20	A
Thallium		1.04	0.0050	1		104	70	130	1.012	2.7	20	
Vanadium		1.02	0.10	1	0.000576	102	70	130	1.019	0.2	20	
Zinc		2.71	0.010	1	1.671	104	70	130	2.727	0.7	20	

Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 19 of 50

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 13958

Run ID :Run Order: ACCU-124 (14410200)_110921A: 1		SampType: Method Blank		Sample ID: MB-13958		Method: A2540 D					
Analysis Date: 09/21/11 13:37		Units: mg/L		Prep Info: Prep Date: 9/21/2011		Prep Method: A2540 D					
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Suspended TSS @ 105 C ND 3

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921A: 2		SampType: Laboratory Control Sample		Sample ID: LCS-13958		Method: A2540 D					
Analysis Date: 09/21/11 13:38		Units: mg/L		Prep Info: Prep Date: 9/21/2011		Prep Method: A2540 D					
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Suspended TSS @ 105 C 1880 10 2000 94 70 130

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921A: 9		SampType: Sample Duplicate		Sample ID: H11090332-001ADUP		Method: A2540 D					
Analysis Date: 09/21/11 13:40		Units: mg/L		Prep Info: Prep Date: 9/21/2011		Prep Method: A2540 D					
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Suspended TSS @ 105 C ND 10

5

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921A: 15		SampType: Sample Duplicate		Sample ID: H11090332-006ADUP		Method: A2540 D					
Analysis Date: 09/21/11 13:42		Units: mg/L		Prep Info: Prep Date: 9/21/2011		Prep Method: A2540 D					
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Solids, Total Suspended TSS @ 105 C ND 10

5

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: 13960

Run ID :Run Order: ACCU-124 (14410200)_110921B: 1	SampType: Method Blank	Sample ID: MB-13960	Method: A2540 C
Analysis Date: 09/21/11 13:52	Units: mg/L	Prep Info: Prep Date: 9/21/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	ND	3	

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921B: 2	SampType: Laboratory Control Sample	Sample ID: LCS-13960	Method: A2540 C
Analysis Date: 09/21/11 13:52	Units: mg/L	Prep Info: Prep Date: 9/21/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2020	10	2000 101 90 110

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921B: 7	SampType: Sample Duplicate	Sample ID: H11090332-001ADUP	Method: A2540 C
Analysis Date: 09/21/11 13:54	Units: mg/L	Prep Info: Prep Date: 9/21/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	118	10	116 1.7 5

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921B: 9	SampType: Sample Matrix Spike	Sample ID: H11090332-002AMS	Method: A2540 C
Analysis Date: 09/21/11 13:54	Units: mg/L	Prep Info: Prep Date: 9/21/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2160	10	2000 140 101 80 120

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: ACCU-124 (14410200)_110921B: 14	SampType: Sample Duplicate	Sample ID: H11090332-006ADUP	Method: A2540 C
Analysis Date: 09/21/11 13:55	Units: mg/L	Prep Info: Prep Date: 9/21/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	138	10	142 2.9 5

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: B_111011zz

Run ID :Run Order: SUB-B173958:1	SampType: Initial Calibration Verification Standard				Sample ID: QCS			Method: E245.1			
Analysis Date: 10/11/11 08:14	Units: mg/L				Prep Info:			Prep Date:			
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.8E-05	0.0010	0.00005		96	90	110				

Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: B_57684

Run ID :Run Order: **SUB-B173958: 2** SampType: Sample Matrix Spike Duplicate Sample ID: H11090332-002C Method: E245.1

Analysis Date: 10/11/11 15:41 Units: mg/L Prep Info: Prep Date: 10/10/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	4.8E-05	0.0010	0.00005	0.00000257	91	70	130	0.0000506		30	
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Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Run ID :Run Order: **SUB-B173958: 3** SampType: Sample Matrix Spike Sample ID: H11090332-002C Method: E245.1

Analysis Date: 10/11/11 15:38 Units: mg/L Prep Info: Prep Date: 10/10/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	5.1E-05	0.0010	0.00005	0.00000257	96	70	130				
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Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Run ID :Run Order: **SUB-B173958: 4** SampType: Laboratory Control Sample Sample ID: LCS-57684 Method: E245.1

Analysis Date: 10/11/11 15:24 Units: mg/L Prep Info: Prep Date: 10/10/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	5.1E-05	0.0010	0.00005	0.0000016	99	85	115				
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Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Run ID :Run Order: **SUB-B173958: 5** SampType: Method Blank Sample ID: MB-57684 Method: E245.1

Analysis Date: 10/11/11 15:09 Units: mg/L Prep Info: Prep Date: 10/10/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	2E-06	1E-06									
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Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

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BatchID: R74602

Run ID :Run Order: MAN-TECH_110921B: 8		SampType: Method Blank			Sample ID: MBLK				Method: A2320 B		
Analysis Date: 09/21/11 15:20	Units: mg/L				Prep Info:	Prep Date:			Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total as CaCO₃ 2 2

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 10		SampType: Laboratory Control Sample			Sample ID: LCS-09152011				Method: A2320 B		
Analysis Date: 09/21/11 15:28	Units: mg/L				Prep Info:	Prep Date:			Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total as CaCO₃ 610 4.0 600 1.97 101 90 110

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 20		SampType: Sample Matrix Spike			Sample ID: H11090332-003AMS				Method: A2320 B		
Analysis Date: 09/21/11 16:04	Units: mg/L				Prep Info:	Prep Date:			Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total as CaCO₃ 690 4.0 600 114.7 97 80 120

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 30		SampType: Sample Duplicate			Sample ID: H11090333-001ADUP				Method: A2320 B		
Analysis Date: 09/21/11 16:40	Units: mg/L				Prep Info:	Prep Date:			Prep Method:		
Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total as CaCO₃ 110 4.0 108.3 0.3 10

Bicarbonate as HCO₃ 130 4.0 132.2 0.3 10

Carbonate as CO₃ ND 4.0 10

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 46		SampType: Sample Duplicate			Sample ID: H11090333-008ADUP				Method: A2320 B		
Analysis Date: 09/21/11 17:34	Units: mg/L				Prep Info:	Prep Date:			Prep Method:		
Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total as CaCO₃ 97 4.0 96.67 0.0 10

Bicarbonate as HCO₃ 120 4.0 117.9 0.0 10

Carbonate as CO₃ ND 4.0 10

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

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Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74602

Run ID :Run Order: MAN-TECH_110921B: 46	SampType: Sample Duplicate	Sample ID: H11090333-008ADUP	Method: A2320 B
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Analysis Date: 09/21/11 17:34	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

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Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74602

Run ID :Run Order: MAN-TECH_110921B: 2		SampType: Continuing Calibration Verification Standard			Sample ID: CCV1-2199			Method: A4500-H B				
Analysis Date: 09/21/11 15:02		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analyses	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		3.91	0.10	4	98	97	103					

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 3		SampType: Continuing Calibration Verification Standard			Sample ID: CCV-2145			Method: A4500-H B				
Analysis Date: 09/21/11 15:05		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analyses	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		7.02	0.10	7	100	98	102					

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 4		SampType: Continuing Calibration Verification Standard			Sample ID: CCV3-2042			Method: A4500-H B				
Analysis Date: 09/21/11 15:08		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analyses	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		10.1	0.10	10	101	99	101					

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 5		SampType: Initial Calibration Verification Standard			Sample ID: ICV-2100			Method: A4500-H B				
Analysis Date: 09/21/11 15:10		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analyses	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		7.00	0.10	7	100	98	102					

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 31		SampType: Sample Duplicate			Sample ID: H11090333-001ADUP			Method: A4500-H B				
Analysis Date: 09/21/11 16:40		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analyses	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		8.28	0.10				8.27	0.1	3			

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

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Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74602

Run ID :Run Order: MAN-TECH_110921B: 47	SampType: Sample Duplicate	Sample ID: H11090333-008ADUP	Method: A4500-H B
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Analysis Date: 09/21/11 17:34	Units: s.u.	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.12	0.10						8.11	0.1		3

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Run ID :Run Order: MAN-TECH_110921B: 78	SampType: Sample Duplicate	Sample ID: H11090337-008ADUP	Method: A4500-H B
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Analysis Date: 09/21/11 19:18	Units: s.u.	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.93	0.10						7.93	0.0		3

Associated samples: **H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

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Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74680

Run ID :Run Order: ICP2-HE_110923B: 6 SampType: Initial Calibration Verification Standard Sample ID: ICV Method: E200.7

Analysis Date: 09/23/11 11:16 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3.91	0.10	4		98	95	105				
Calcium	38.6	1.0	40		96	95	105				
Magnesium	38.2	1.0	40		96	95	105				
Potassium	39.3	1.0	40		98	95	105				
Sodium	39.5	1.0	40		99	95	105				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 7 SampType: Continuing Calibration Verification Standard Sample ID: CCV-1 Method: E200.7

Analysis Date: 09/23/11 11:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.51	0.10	2.5		100	95	105				
Calcium	24.6	1.0	25		99	95	105				
Magnesium	24.3	1.0	25		97	95	105				
Potassium	24.9	1.0	25		99	95	105				
Sodium	24.9	1.0	25		99	95	105				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 10 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.7

Analysis Date: 09/23/11 11:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	511	0.10	500		102	80	120				
Calcium	459	1.0	500		92	80	120				
Magnesium	499	1.0	500		100	80	120				
Potassium	-0.0762	1.0				0	0				
Sodium	0.0264	1.0				0	0				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 11 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.7

Analysis Date: 09/23/11 11:35 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	516	0.10	500		103	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74680

Run ID :Run Order: ICP2-HE_110923B: 11 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.7

Analysis Date: 09/23/11 11:35 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	459	1.0	500		92	80	120				
Magnesium	503	1.0	500		101	80	120				
Potassium	20.8	1.0	20		104	80	120				
Sodium	20.7	1.0	20		103	80	120				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 13 SampType: Method Blank Sample ID: ICB Method: E200.7

Analysis Date: 09/23/11 11:42 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Calcium	0.04	0.008									
Magnesium	0.01	0.003									
Potassium	ND	0.04									
Sodium	ND	0.01									

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 14 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.7

Analysis Date: 09/23/11 11:46 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.70	0.10	5		94	85	115				
Calcium	46.7	1.0	50	0.04078	93	85	115				
Magnesium	46.0	1.0	50	0.01211	92	85	115				
Potassium	47.4	1.0	50		95	85	115				
Sodium	47.6	1.0	50		95	85	115				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 88 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E200.7

Analysis Date: 09/23/11 17:02 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.47	0.10	2.5		99	90	110				
Calcium	23.8	1.0	25		95	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74680

Run ID :Run Order: ICP2-HE_110923B: 88 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E200.7

Analysis Date: 09/23/11 17:02 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	22.8	1.0	25	91	90	110					
Potassium	24.8	1.0	25	99	90	110					
Sodium	25.2	1.0	25	101	90	110					

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 90 SampType: Sample Matrix Spike Sample ID: H11090331-001BMS2 Method: E200.7

Analysis Date: 09/23/11 17:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.53	0.10	5	0.09166	89	70	130				
Calcium	67.8	1.0	50	20.95	94	70	130				
Magnesium	47.4	1.0	50	2.693	89	70	130				
Potassium	55.9	1.0	50	6.952	98	70	130				
Sodium	92.1	1.0	50	42.54	99	70	130				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 91 SampType: Sample Matrix Spike Duplicate Sample ID: H11090331-001BMSD2 Method: E200.7

Analysis Date: 09/23/11 17:12 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.53	0.10	5	0.09166	89	70	130	4.528	0.1	20	
Calcium	68.1	1.0	50	20.95	94	70	130	67.77	0.4	20	
Magnesium	47.7	1.0	50	2.693	90	70	130	47.39	0.5	20	
Potassium	55.4	1.0	50	6.952	97	70	130	55.88	0.9	20	
Sodium	91.2	1.0	50	42.54	97	70	130	92.07	1.0	20	

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 104 SampType: Sample Matrix Spike Sample ID: H11090333-004BMS2 Method: E200.7

Analysis Date: 09/23/11 18:01 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.37	0.10	5		87	70	130				
Calcium	307	1.0	50	264.5		70	130				A
Magnesium	228	1.0	50	180.9	95	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74680

Run ID :Run Order: ICP2-HE_110923B: 104 SampType: Sample Matrix Spike Sample ID: H11090333-004BMS2 Method: E200.7

Analysis Date: 09/23/11 18:01 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium		50.8	1.0	50	2.17	97	70	130				
Sodium		50.5	1.0	50	0.6913	100	70	130				

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Run ID :Run Order: ICP2-HE_110923B: 105 SampType: Sample Matrix Spike Duplicate Sample ID: H11090333-004BMSD2 Method: E200.7

Analysis Date: 09/23/11 18:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		4.42	0.10	5		88	70	130	4.366	1.3	20	
Calcium		309	1.0	50	264.5		70	130	306.7	0.6	20	A
Magnesium		229	1.0	50	180.9	96	70	130	228.4	0.3	20	
Potassium		50.3	1.0	50	2.17	96	70	130	50.78	1.0	20	
Sodium		50.1	1.0	50	0.6913	99	70	130	50.5	0.8	20	

Associated samples: H11090332-001B; H11090332-002B; H11090332-003B; H11090332-004B; H11090332-005B; H11090332-006B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 24		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD			Method: E200.8				
Analysis Date: 09/23/11 14:22		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.252	0.10	0.25		101	90	110				
Antimony		0.0510	0.050	0.05		102	90	110				
Arsenic		0.0531	0.0050	0.05		106	90	110				
Barium		0.0509	0.10	0.05		102	90	110				
Beryllium		0.0260	0.0010	0.025		104	90	110				
Cadmium		0.0271	0.0010	0.025		108	90	110				
Calcium		2.66	0.50	2.5		106	90	110				
Chromium		0.0530	0.010	0.05		106	90	110				
Cobalt		0.0550	0.010	0.05		110	90	110				
Copper		0.0543	0.010	0.05		109	90	110				
Iron		0.256	0.030	0.25		102	90	110				
Lead		0.0513	0.010	0.05		103	90	110				
Magnesium		2.64	0.50	2.5		106	90	110				
Manganese		0.257	0.010	0.25		103	90	110				
Mercury		0.00202	0.0010	0.002		101	90	110				
Nickel		0.0540	0.010	0.05		108	90	110				
Potassium		2.59	0.50	2.5		104	90	110				
Selenium		0.0518	0.0050	0.05		104	90	110				
Silver		0.0249	0.0050	0.025		100	90	110				
Sodium		2.61	0.50	2.5		104	90	110				
Thallium		0.0508	0.10	0.05		102	90	110				
Vanadium		0.0522	0.10	0.05		104	90	110				
Zinc		0.0544	0.010	0.05		109	90	110				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 25		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 09/23/11 14:26		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		41.3	0.10	40		103	70	130				
Antimony		0.000338	0.050									
Arsenic		0.000153	0.0050									
Barium		0.000180	0.10									
Beryllium		2.30E-05	0.0010									

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 25 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/23/11 14:26 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000548	0.0010									
Calcium	119	0.50	120		99	70	130				
Chromium	0.00219	0.010									
Cobalt	0.00192	0.010									
Copper	0.000441	0.010									
Iron	104	0.030	100		104	70	130				
Lead	9.20E-05	0.010									
Magnesium	43.0	0.50	40		108	70	130				
Manganese	0.00227	0.010									
Mercury	6.90E-05	0.0010									
Nickel	0.00143	0.010									
Potassium	41.5	0.50	40		104	70	130				
Selenium	0.000180	0.0050									
Silver	0.000237	0.0050									
Sodium	107	0.50	100		107	70	130				
Thallium	3.30E-05	0.10									
Vanadium	0.000182	0.10									
Zinc	0.00106	0.010									

Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C**

Run ID :Run Order: ICPMS204-B_110923B: 26 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/23/11 14:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.2	0.10	40		106	70	130				
Antimony	0.000353	0.050				0	0				
Arsenic	0.0112	0.0050	0.01		112	70	130				
Barium	0.000154	0.10				0	0				
Beryllium	1.00E-05	0.0010				0	0				
Cadmium	0.0114	0.0010	0.01		114	70	130				
Calcium	121	0.50	120		101	70	130				
Chromium	0.0238	0.010	0.02		119	70	130				
Cobalt	0.0256	0.010	0.02		128	70	130				
Copper	0.0217	0.010	0.02		109	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 26 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/23/11 14:31 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	106	0.030	100		106	70	130				
Lead	8.20E-05	0.010				0	0				
Magnesium	44.1	0.50	40		110	70	130				
Manganese	0.0247	0.010	0.02		123	70	130				
Mercury	2.90E-05	0.0010				0	0				
Nickel	0.0230	0.010	0.02		115	70	130				
Potassium	42.8	0.50	40		107	70	130				
Selenium	0.0110	0.0050	0.01		109	70	130				
Silver	0.0205	0.0050	0.02		103	70	130				
Sodium	110	0.50	100		110	70	130				
Thallium	1.60E-05	0.10				0	0				
Vanadium	0.0222	0.10	0.02		111	70	130				
Zinc	0.0120	0.010	0.01		120	70	130				

Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C**

Run ID :Run Order: ICPMS204-B_110923B: 42 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 09/23/11 16:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.246	0.10	0.25		98	90	110				
Antimony	0.0494	0.050	0.05		99	90	110				
Arsenic	0.0484	0.0050	0.05		97	90	110				
Barium	0.0494	0.10	0.05		99	90	110				
Beryllium	0.0253	0.0010	0.025		101	90	110				
Cadmium	0.0263	0.0010	0.025		105	90	110				
Calcium	2.49	0.50	2.5		100	90	110				
Chromium	0.0488	0.010	0.05		98	90	110				
Cobalt	0.0524	0.010	0.05		105	90	110				
Copper	0.0501	0.010	0.05		100	90	110				
Iron	0.257	0.030	0.25		103	90	110				
Lead	0.0510	0.010	0.05		102	90	110				
Magnesium	2.49	0.50	2.5		100	90	110				
Manganese	0.252	0.010	0.25		101	90	110				
Mercury	0.00200	0.0010	0.002		100	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 42 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 09/23/11 16:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0499	0.010	0.05		100	90	110				
Potassium	2.40	0.50	2.5		96	90	110				
Selenium	0.0507	0.0050	0.05		101	90	110				
Silver	0.0243	0.0050	0.025		97	90	110				
Sodium	2.46	0.50	2.5		98	90	110				
Thallium	0.0505	0.10	0.05		101	90	110				
Vanadium	0.0487	0.10	0.05		97	90	110				
Zinc	0.0502	0.010	0.05		100	90	110				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 49 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 09/23/11 16:57 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0006	0.0003									
Antimony	8E-06	7E-06									
Arsenic	ND	3E-05									
Barium	ND	3E-05									
Beryllium	ND	2E-05									
Cadmium	ND	1E-05									
Calcium	0.004	0.003									
Chromium	ND	6E-05									
Cobalt	ND	9E-06									
Copper	5E-05	3E-05									
Iron	0.001	0.0002									
Lead	ND	1.0E-05									
Magnesium	0.001	0.0007									
Manganese	8E-05	1E-05									
Mercury	ND	9E-06									
Nickel	ND	5E-05									
Potassium	ND	0.010									
Selenium	ND	4E-05									
Silver	8E-05	3E-05									
Sodium	ND	0.003									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 49 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 09/23/11 16:57 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	ND	7E-06									
Vanadium	ND	1E-05									
Zinc	0.0005	0.0003									

Associated samples: H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 55 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 09/23/11 17:48 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0505	0.10	0.05	0.000562	100	85	115				
Antimony	0.0495	0.050	0.05	0.0000077	99	85	115				
Arsenic	0.0478	0.0050	0.05		96	85	115				
Barium	0.0494	0.10	0.05		99	85	115				
Beryllium	0.0492	0.0010	0.05		98	85	115				
Cadmium	0.0480	0.0010	0.05		96	85	115				
Calcium	44.8	0.50	50	0.004263	90	85	115				
Chromium	0.0480	0.010	0.05		96	85	115				
Cobalt	0.0494	0.010	0.05		99	85	115				
Copper	0.0470	0.010	0.05	0.0000499	94	85	115				
Iron	4.92	0.030	5	0.001374	98	85	115				
Lead	0.0504	0.010	0.05		101	85	115				
Magnesium	45.1	0.50	50	0.001136	90	85	115				
Manganese	0.0492	0.010	0.05	0.0000793	98	85	115				
Mercury	0.000988	0.0010	0.001		99	85	115				
Nickel	0.0471	0.010	0.05		94	85	115				
Potassium	46.9	0.50	50		94	85	115				
Selenium	0.0488	0.0050	0.05		98	85	115				
Silver	0.0186	0.0050	0.02	0.0000766	93	85	115				
Sodium	45.4	0.50	50		91	85	115				
Thallium	0.0507	0.10	0.05		101	85	115				
Vanadium	0.0484	0.10	0.05		97	85	115				
Zinc	0.0483	0.010	0.05	0.0004938	96	85	115				

Associated samples: H11090332-004C; H11090332-005C; H11090332-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 67 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 09/24/11 01:51 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.244	0.10	0.25		98	90	110				
Antimony	0.0493	0.050	0.05		99	90	110				
Arsenic	0.0492	0.0050	0.05		98	90	110				
Barium	0.0489	0.10	0.05		98	90	110				
Beryllium	0.0253	0.0010	0.025		101	90	110				
Cadmium	0.0260	0.0010	0.025		104	90	110				
Calcium	2.53	0.50	2.5		101	90	110				
Chromium	0.0494	0.010	0.05		99	90	110				
Cobalt	0.0523	0.010	0.05		105	90	110				
Copper	0.0511	0.010	0.05		102	90	110				
Iron	0.261	0.030	0.25		104	90	110				
Lead	0.0509	0.010	0.05		102	90	110				
Magnesium	2.53	0.50	2.5		101	90	110				
Manganese	0.246	0.010	0.25		99	90	110				
Mercury	0.00197	0.0010	0.002		98	90	110				
Nickel	0.0507	0.010	0.05		101	90	110				
Potassium	2.49	0.50	2.5		100	90	110				
Selenium	0.0517	0.0050	0.05		103	90	110				
Silver	0.0246	0.0050	0.025		98	90	110				
Sodium	2.54	0.50	2.5		101	90	110				
Thallium	0.0510	0.10	0.05		102	90	110				
Vanadium	0.0498	0.10	0.05		100	90	110				
Zinc	0.0518	0.010	0.05		104	90	110				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 68 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/24/11 01:55 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.5	0.10	40		104	70	130				
Antimony	0.000350	0.050									
Arsenic	0.000257	0.0050									
Barium	0.000166	0.10									
Beryllium	1.70E-05	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 68 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/24/11 01:55 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000531	0.0010									
Calcium	117	0.50	120		97	70	130				
Chromium	0.00214	0.010									
Cobalt	0.00190	0.010									
Copper	0.000466	0.010									
Iron	106	0.030	100		106	70	130				
Lead	9.30E-05	0.010									
Magnesium	43.3	0.50	40		108	70	130				
Manganese	0.00225	0.010									
Mercury	9.90E-05	0.0010									
Nickel	0.00140	0.010									
Potassium	41.5	0.50	40		104	70	130				
Selenium	0.000206	0.0050									
Silver	0.000496	0.0050									
Sodium	107	0.50	100		107	70	130				
Thallium	3.20E-05	0.10									
Vanadium	0.000194	0.10									
Zinc	0.00109	0.010									

Associated samples: **H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C**

Run ID :Run Order: ICPMS204-B_110923B: 69 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/24/11 02:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.6	0.10	40		104	70	130				
Antimony	0.000318	0.050				0	0				
Arsenic	0.0112	0.0050	0.01		113	70	130				
Barium	0.000156	0.10				0	0				
Beryllium	6.00E-06	0.0010				0	0				
Cadmium	0.0109	0.0010	0.01		109	70	130				
Calcium	120	0.50	120		100	70	130				
Chromium	0.0238	0.010	0.02		119	70	130				
Cobalt	0.0250	0.010	0.02		125	70	130				
Copper	0.0217	0.010	0.02		108	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 69 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/24/11 02:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	106	0.030	100		106	70	130				
Lead	7.90E-05	0.010				0	0				
Magnesium	44.3	0.50	40		111	70	130				
Manganese	0.0244	0.010	0.02		122	70	130				
Mercury	4.40E-05	0.0010				0	0				
Nickel	0.0230	0.010	0.02		115	70	130				
Potassium	42.5	0.50	40		106	70	130				
Selenium	0.0111	0.0050	0.01		111	70	130				
Silver	0.0206	0.0050	0.02		103	70	130				
Sodium	110	0.50	100		110	70	130				
Thallium	1.60E-05	0.10				0	0				
Vanadium	0.0223	0.10	0.02		111	70	130				
Zinc	0.0115	0.010	0.01		115	70	130				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 130 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 09/24/11 10:54 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.245	0.10	0.25		98	90	110				
Antimony	0.0502	0.050	0.05		100	90	110				
Arsenic	0.0505	0.0050	0.05		101	90	110				
Barium	0.0501	0.10	0.05		100	90	110				
Beryllium	0.0251	0.0010	0.025		101	90	110				
Cadmium	0.0264	0.0010	0.025		106	90	110				
Calcium	2.65	0.50	2.5		106	90	110				
Chromium	0.0516	0.010	0.05		103	90	110				
Cobalt	0.0528	0.010	0.05		106	90	110				
Copper	0.0523	0.010	0.05		105	90	110				
Iron	0.258	0.030	0.25		103	90	110				
Lead	0.0515	0.010	0.05		103	90	110				
Magnesium	2.54	0.50	2.5		101	90	110				
Manganese	0.250	0.010	0.25		100	90	110				
Mercury	0.00196	0.0010	0.002		98	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 130 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 09/24/11 10:54 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0522	0.010	0.05		104	90	110				
Potassium	2.55	0.50	2.5		102	90	110				
Selenium	0.0510	0.0050	0.05		102	90	110				
Silver	0.0249	0.0050	0.025		100	90	110				
Sodium	2.54	0.50	2.5		102	90	110				
Thallium	0.0514	0.10	0.05		103	90	110				
Vanadium	0.0512	0.10	0.05		102	90	110				
Zinc	0.0529	0.010	0.05		106	90	110				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 131 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/24/11 10:58 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.2	0.10	40		103	70	130				
Antimony	0.000366	0.050									
Arsenic	0.000183	0.0050									
Barium	0.000191	0.10									
Beryllium	2.50E-05	0.0010									
Cadmium	0.000466	0.0010									
Calcium	121	0.50	120		101	70	130				
Chromium	0.00229	0.010									
Cobalt	0.00188	0.010									
Copper	0.000435	0.010									
Iron	103	0.030	100		103	70	130				
Lead	0.000107	0.010									
Magnesium	42.8	0.50	40		107	70	130				
Manganese	0.00194	0.010									
Mercury	6.00E-05	0.0010									
Nickel	0.00151	0.010									
Potassium	42.0	0.50	40		105	70	130				
Selenium	0.000215	0.0050									
Silver	0.000371	0.0050									
Sodium	106	0.50	100		106	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 131 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/24/11 10:58 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	5.00E-05	0.10									
Vanadium	0.000198	0.10									
Zinc	0.00110	0.010									

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 132 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/24/11 11:03 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.4	0.10	40		103	70	130				
Antimony	0.000343	0.050				0	0				
Arsenic	0.0111	0.0050	0.01		111	70	130				
Barium	0.000153	0.10				0	0				
Beryllium	1.20E-05	0.0010				0	0				
Cadmium	0.0110	0.0010	0.01		109	70	130				
Calcium	122	0.50	120		101	70	130				
Chromium	0.0242	0.010	0.02		121	70	130				
Cobalt	0.0253	0.010	0.02		127	70	130				
Copper	0.0216	0.010	0.02		108	70	130				
Iron	105	0.030	100		105	70	130				
Lead	8.10E-05	0.010				0	0				
Magnesium	42.9	0.50	40		107	70	130				
Manganese	0.0242	0.010	0.02		121	70	130				
Mercury	2.80E-05	0.0010				0	0				
Nickel	0.0232	0.010	0.02		116	70	130				
Potassium	42.4	0.50	40		106	70	130				
Selenium	0.0105	0.0050	0.01		105	70	130				
Silver	0.0199	0.0050	0.02		100	70	130				
Sodium	106	0.50	100		106	70	130				
Thallium	1.90E-05	0.10				0	0				
Vanadium	0.0225	0.10	0.02		112	70	130				
Zinc	0.0118	0.010	0.01		118	70	130				

Associated samples: H11090332-001C; H11090332-002C; H11090332-003C; H11090332-004C; H11090332-005C; H11090332-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT
Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 155 SampType: Sample Matrix Spike Sample ID: H11090332-004CMS Method: E200.8

Analysis Date: 09/24/11 12:48 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0640	0.10	0.05	0.01735	93	70	130				
Antimony	0.0490	0.0050	0.05		98	70	130				
Arsenic	0.0490	0.0050	0.05		98	70	130				
Barium	0.164	0.10	0.05	0.1167	96	70	130				
Beryllium	0.0471	0.0010	0.05		94	70	130				
Cadmium	0.0470	0.0010	0.05		94	70	130				
Calcium	60.0	1.0	50	16.9	86	70	130				
Chromium	0.0482	0.010	0.05		96	70	130				
Cobalt	0.0497	0.010	0.05	0.0001025	99	70	130				
Copper	0.0483	0.010	0.05	0.001344	94	70	130				
Iron	4.91	0.030	5	0.1393	95	70	130				
Lead	0.0498	0.010	0.05	0.0000293	100	70	130				
Magnesium	53.0	1.0	50	6.878	92	70	130				
Manganese	0.0685	0.010	0.05	0.02232	92	70	130				
Mercury	0.000980	0.0010	0.001		98	70	130				
Nickel	0.0472	0.010	0.05	0.0002636	94	70	130				
Potassium	48.1	1.0	50	0.6052	95	70	130				
Selenium	0.0494	0.0050	0.05		99	70	130				
Silver	0.0199	0.0050	0.02		99	70	130				
Sodium	49.0	1.0	50	2.01	94	70	130				
Thallium	0.0502	0.0050	0.05		100	70	130				
Vanadium	0.0489	0.10	0.05	0.0004179	97	70	130				
Zinc	0.0496	0.010	0.05	0.001382	96	70	130				

Associated samples: H11090332-004C; H11090332-005C; H11090332-006C

Run ID :Run Order: ICPMS204-B_110923B: 156 SampType: Sample Matrix Spike Duplicate Sample ID: H11090332-004CMSD Method: E200.8

Analysis Date: 09/24/11 12:52 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0670	0.10	0.05	0.01735	99	70	130	0.06404		20	
Antimony	0.0477	0.0050	0.05		95	70	130	0.04896	2.5	20	
Arsenic	0.0483	0.0050	0.05		97	70	130	0.049	1.5	20	
Barium	0.160	0.10	0.05	0.1167	87	70	130	0.1645	2.7	20	
Beryllium	0.0470	0.0010	0.05		94	70	130	0.04714	0.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74742

Run ID :Run Order: ICPMS204-B_110923B: 156 SampType: Sample Matrix Spike Duplicate Sample ID: H11090332-004CMSD Method: E200.8

Analysis Date: 09/24/11 12:52

Units: mg/L

Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0461	0.0010	0.05		92	70	130	0.04698	1.8	20	
Calcium	60.1	1.0	50	16.9	86	70	130	59.97	0.2	20	
Chromium	0.0483	0.010	0.05		97	70	130	0.04816	0.4	20	
Cobalt	0.0492	0.010	0.05	0.0001025	98	70	130	0.04972	1.0	20	
Copper	0.0481	0.010	0.05	0.001344	94	70	130	0.0483	0.4	20	
Iron	4.83	0.030	5	0.1393	94	70	130	4.913	1.7	20	
Lead	0.0485	0.010	0.05	0.0000293	97	70	130	0.04979	2.6	20	
Magnesium	52.9	1.0	50	6.878	92	70	130	53.04	0.3	20	
Manganese	0.0676	0.010	0.05	0.02232	91	70	130	0.06851	1.4	20	
Mercury	0.000952	0.0010	0.001		95	70	130	0.00098		20	
Nickel	0.0464	0.010	0.05	0.0002636	92	70	130	0.04723	1.9	20	
Potassium	48.1	1.0	50	0.6052	95	70	130	48.09	0.0	20	
Selenium	0.0478	0.0050	0.05		96	70	130	0.04937	3.2	20	
Silver	0.0192	0.0050	0.02		96	70	130	0.01988	3.5	20	
Sodium	48.5	1.0	50	2.01	93	70	130	48.95	1.0	20	
Thallium	0.0493	0.0050	0.05		99	70	130	0.05017	1.7	20	
Vanadium	0.0488	0.10	0.05	0.0004179	97	70	130	0.04892		20	
Zinc	0.0491	0.010	0.05	0.001382	95	70	130	0.04958	1.0	20	

Associated samples: H11090332-004C; H11090332-005C; H11090332-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74774

Run ID :Run Order: IC101-H_110927A: 15 SampType: Initial Calibration Verification Standard Sample ID: ICV092711-12 Method: E300.0

Analysis Date: 09/27/11 12:20 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	110	1.0	100		107	90	110				
Sulfate	420	1.0	400		106	90	110				

Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 16 SampType: Method Blank Sample ID: ICB092711-13 Method: E300.0

Analysis Date: 09/27/11 12:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	ND	0.07									
Sulfate	ND	0.1									

Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB092711-14 Method: E300.0

Analysis Date: 09/27/11 12:47 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	51	1.0	50		102	90	110				
Sulfate	200	1.1	200		102	90	110				

Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 19 SampType: Continuing Calibration Verification Standard Sample ID: CCV092711-15 Method: E300.0

Analysis Date: 09/27/11 13:14 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	100	1.0	100		104	90	110				
Sulfate	420	1.0	400		104	90	110				

Associated samples: H11090332-001A

Run ID :Run Order: IC101-H_110927A: 32 SampType: Sample Matrix Spike Sample ID: H11090332-001AMS Method: E300.0

Analysis Date: 09/27/11 16:08 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50	0.232	100	90	110				
Sulfate	200	1.1	200	3.123	101	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090332

ANALYTICAL QC SUMMARY REPORT

Date: 12-Oct-11

Project: Section 35 Baseline Surface Water

BatchID: R74774

Run ID :Run Order: IC101-H_110927A: 32 SampType: Sample Matrix Spike Sample ID: H11090332-001AMS Method: E300.0

Analysis Date: 09/27/11 16:08 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 33 SampType: Sample Matrix Spike Duplicate Sample ID: H11090332-001AMSD Method: E300.0

Analysis Date: 09/27/11 16:22 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	51	1.0	50	0.232	101	90	110	50.14	1.6	20
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Sulfate	210	1.1	200	3.123	103	90	110	204.8	2.0	20
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Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 34 SampType: Continuing Calibration Verification Standard Sample ID: CCV092711-30 Method: E300.0

Analysis Date: 09/27/11 16:35 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	100	1.0	100		105	90	110			
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Sulfate	420	1.0	400		105	90	110			
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Associated samples: H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 42 SampType: Sample Matrix Spike Sample ID: H11090333-001AMS Method: E300.0

Analysis Date: 09/27/11 18:22 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50	0.127	100	90	110			
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Sulfate	210	1.1	200	4.2	102	90	110			
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Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Run ID :Run Order: IC101-H_110927A: 43 SampType: Sample Matrix Spike Duplicate Sample ID: H11090333-001AMSD Method: E300.0

Analysis Date: 09/27/11 18:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50	0.127	100	90	110	50.02	0.3	20
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Sulfate	210	1.1	200	4.2	101	90	110	207.8	0.5	20
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Associated samples: H11090332-001A; H11090332-002A; H11090332-003A; H11090332-004A; H11090332-005A; H11090332-006A

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11090332

Login completed by: Wanda Johnson

Date Received: 9/20/2011

Reviewed by: BL2000\sdull

Received by: elm

Reviewed Date: 10/4/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	3.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

S35SW04 time on bottle states 14:10 COC states 13:55. E-mail sent to client regarding time & which one we should use. Wj 9/20/11. Received e-mail from A Dreesbach stating to use the 14:10 bottle. Wj 9/23/11



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:

MKEQ - SKS

Report Mail Address:

Quote H-645

Invoice Address:

Special Report/Formats:

- DW
- POTWWTP
- State: _____
- Other: _____
- EDD/EDT(Electronic Data)
- Format: _____
- LEVEL IV
- NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

Project Name, PWS, Permit, Etc. **Section 35**

Sample Origin **MH**

EPA/State Compliance:

Yes No

Sampler: (Please Print)
Alison Trebsack

Phone/Fax: **845-033**

Invoice Contact & Phone: **Shanland, Inc.**

Purchase Order:

Quote/Bottle Order:

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

R	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Shipped by: HAN
U	Comments: Pls use my results to rush back portage inc.	Receipt Temp: 3.4 °C
S		On Ice: Y N
H		Custody Seal: On Cooler
	Intact Signature: Y N	On Bottle: Y N
	Match Signature: Y N	

40490-35

H1102032

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1 S35 SW05	9/19/11	0955	W
2 S35 SW01	9/19/11	1115	Surface water
3 S35 SW06	9/19/11	1120	
4 S35 SW02	9/19/11	1300	
5 S35 SW04	9/19/11	1355	
6 S35 SW03	9/19/11	1445	W
7			
8			
9			
10			

9/19/11

Custody Record
Reinquished by (print): Athena Drews, Inc. Date/Time: **9/20/11 e 1445** Signature: **J. Brown**

Reinquished by (print):

Date/Time:

Signature:

Received by (print):

Date/Time:

Signature:

LABORATORY USE ONLY

MUST be Signed

Sample Disposal: Return to Client.

Lab Disposal:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Quotation for Analytical Services # H645

Company: MT DEQ-Site Response
 Contact: Shellie Haaland
 Address: PO Box 200901
 Helena, MT 59620-0901
 Phone: (406) 841-5033 Fax:

Submitted By:
 Project: UBMC
 TAT: 10 Working days
 QC Level: STD
 Quote Date: 30-Apr-11 Expires: 31-Dec-12

Matrix	Test Name	Test	Remarks	# Samp	Unit Price	Test Total
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Schedule: UBMC Surface Water

Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1	\$15.00
Alkalinity	A2320 B		1	\$10.00	1	\$10.00
Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
Conductivity	A2510 B		1	\$10.00	1	\$10.00
Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
pH	A4500-H B		1	\$10.00	1	\$10.00
Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1	\$15.00
Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$145.00	1	\$145.00
Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$65.00	1	\$65.00
Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1	\$20.00

Schedule Sample Price: \$320.00**Schedule Total: \$320.00****Schedule: UBMC Ground Water**

Aqueous	Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
	Conductivity	A2510 B		1	\$10.00	1	\$10.00
	Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
	Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
	pH	A4500-H B		1	\$15.00	1	\$15.00
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$10.00	1	\$10.00
	Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$200.00	1	\$200.00

Schedule Sample Price: \$270.00**Schedule Total: \$270.00**

No Alkalinity or Acidity

Schedule: UBMC Surface Water Section 35 Baseline

Aqueous	Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1	\$15.00
	Alkalinity	A2320 B		1	\$10.00	1	\$10.00
	Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
	Conductivity	A2510 B		1	\$10.00	1	\$10.00
	Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
	Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
	pH	A4500-H B		1	\$15.00	1	\$15.00
	Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1	\$15.00
	Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$200.00	1	\$200.00
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$65.00	1	\$65.00
	Mercury, Total	E245.7	Only used if can not be achieved by other methods.	1	\$50.00	1	\$50.00
	Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1	\$20.00

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents .

* Methods and/or parameters included in the indicated test group.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.



Quotation for Analytical Services # H645

Company: MT DEQ-Site Response
 Contact: Shellie Haaland
 Address: PO Box 200901
 Helena, MT 59620-0901
 Phone: (406) 841-5033 Fax:

Submitted By:
 Project: UBMC
 TAT: 10 Working days
 QC Level: STD
 Quote Date: 30-Apr-11 Expires: 31-Dec-12

Matrix	Test Name	Test	Remarks	# Samp	Unit Price	Test Total
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Schedule: UBMC Surface Water Section 35 Baseline

Schedule Sample Price: \$425.00

Schedule Total: \$425.00

Schedule: UBMC Ground Water Section 35 Baseline

Aqueous	Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1	\$15.00
	Alkalinity	A2320 B		1	\$10.00	1	\$10.00
	Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
	Conductivity	A2510 B		1	\$10.00	1	\$10.00
	Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
	Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
	pH	A4500-H B		1	\$10.00	1	\$10.00
	Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1	\$15.00
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$200.00	1	\$200.00
	Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$200.00	1	\$200.00
	Mercury, Total	E245.7	Only used if can not be achieved by other methods.	1	\$50.00	1	\$50.00
	Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1	\$20.00
					Schedule Sample Price: \$560.00		
					Schedule Total: \$560.00		

Schedule: Sediment

Metals by ICP/ICPMS, Total	E6010.20	1	\$80.00	1	\$80.00
Digestion, Total Metals	SW3050 B	1	\$25.00	1	\$25.00

Schedule Sample Price: \$105.00

Schedule Total: \$105.00

Quote Comments:	Shipping Labels provided at 12.00 a cooler by UPS or FED EX.	Quote Sub Total: \$1,680.00
		Misc: \$0.00
		Discount: 30.00%
		WO Adjustment: \$0.00
QUOTE TOTAL:		\$1,176.00

General Comments: Price per sampling event. Sampling to be completed by Portage Inc. 1065 N Ewing Helena, MT 406-457-0056

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents .

* Methods and/or parameters included in the indicated test group.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.



Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<u>UBMC Surface Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
✓Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
✓Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
✓Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
✓pH	Zinc	0.01	mg/L
	pH	0.1	s.u.
✓Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
✓Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

October 19, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11090405 Quote ID: H645 - UBMC

Project Name: Section 35 Groundwater Baseline

Energy Laboratories Inc Helena MT received the following 9 samples for MT DEQ-Site Response on 9/23/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11090405-001	S35MW02	09/21/11 12:05	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-002	S35MW08	09/21/11 12:20	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-003	S35MW09	09/21/11 12:55	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended

ANALYTICAL SUMMARY REPORT

H11090405-004	S35MW01	09/21/11 14:20	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-005	S35MW03	09/21/11 16:15	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-006	S35MW06	09/21/11 17:35	09/23/11	Aqueous	Same As Above
H11090405-007	S35MW04	09/21/11 18:15	09/23/11	Aqueous	Same As Above
H11090405-008	S35MW07	09/21/11 18:25	09/23/11	Aqueous	Same As Above
H11090405-009	TB2004HCL091311EM	09/21/11 12:05	09/23/11	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: Section 35 Groundwater Baseline
Sample Delivery Group: H11090405

Report Date: 10/19/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11090405-001
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:05 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 35		R74718
Conductivity	306	umhos/cm		1		A2510 B	09/26/11 11:53 / cmm		COND_110926A : 33	10926A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	280	mg/L		10		A2540 D	09/26/11 14:19 / cmm	09/26/11 13:56-124 (14410200)_110926A : 13			14027
Solids, Total Dissolved TDS @ 180 C	206	mg/L		10		A2540 C	09/26/11 14:41 / cmm	09/26/11 14:04-124 (14410200)_110926B : 20			14030
INORGANICS											
Alkalinity, Total as CaCO ₃	190	mg/L		4		A2320 B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 34		R74718
Bicarbonate as HCO ₃	230	mg/L		4		A2320 B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 34		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 34		R74718
Chloride	1	mg/L		1		E300.0	10/05/11 15:34 / zeg		IC101-H_111005A : 32		R75087
Sulfate	5	mg/L		1		E300.0	10/05/11 15:34 / zeg		IC101-H_111005A : 32		R75087
Hardness as CaCO ₃	224	mg/L		1		A2340 B	10/11/11 08:54 / sld		WATERCALC_111011A : 1		R75211
METALS, DISSOLVED											
Aluminum	0.03	mg/L		0.03		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Antimony	ND	mg/L		0.003		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Arsenic	ND	mg/L		0.003		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Barium	0.792	mg/L		0.005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Beryllium	ND	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Cadmium	0.00055	mg/L		0.00008		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Calcium	64	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Chromium	ND	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Cobalt	ND	mg/L		0.01		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Copper	0.008	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Iron	0.06	mg/L		0.05		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Lead	ND	mg/L		0.0005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Magnesium	15	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Manganese	0.022	mg/L		0.005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Mercury	0.00004	mg/L		0.00001		E200.8	10/07/11 18:19 / dck		ICPMS204-B_111007A : 31		R75194
Nickel	ND	mg/L		0.01		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Potassium	2	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Selenium	ND	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11090405-001
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:05 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Sodium	5	mg/L		1	E200.8		09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Thallium	ND	mg/L		0.0002	E200.8		09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Vanadium	ND	mg/L		0.1	E200.8		09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Zinc	ND	mg/L		0.01	E200.8		09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
METALS, TOTAL											
Mercury	0.00045	mg/L	D	0.00005	E245.1		10/06/11 14:58 / eli-b	09/29/11 08:55	SUB-B173749 : 2		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	6.33	mg/L		0.03	E200.8		10/10/11 20:18 / dck	09/26/11 09:54	ICPMS204-B_111010A : 137		14013
Antimony	0.003	mg/L		0.003	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Arsenic	0.012	mg/L		0.003	E200.8		10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Barium	1.25	mg/L		0.005	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Beryllium	ND	mg/L		0.001	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Cadmium	0.00102	mg/L		0.00008	E200.8		10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Calcium	66	mg/L		1	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Chromium	0.037	mg/L		0.001	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Cobalt	ND	mg/L		0.01	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Copper	0.053	mg/L		0.001	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Iron	20.2	mg/L		0.03	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Lead	0.0538	mg/L		0.0005	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Magnesium	14	mg/L		1	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Manganese	0.711	mg/L		0.005	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Nickel	0.02	mg/L		0.01	E200.8		10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Potassium	4	mg/L		1	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Selenium	ND	mg/L		0.001	E200.8		10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Silver	0.0167	mg/L		0.0005	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Sodium	3	mg/L		1	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Vanadium	ND	mg/L		0.1	E200.8		10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Zinc	0.15	mg/L		0.01	E200.8		10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11090405-002
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.8	s.u.		0.1		A4500-H B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 37		R74718
Conductivity	ND	umhos/cm		1		A2510 B	09/26/11 11:54 / cmm		COND_110926A : 34	10926A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/26/11 14:19 / cmm	09/26/11 13:56-124 (14410200)_110926A : 14			14027
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	09/28/11 12:49 / cmm	09/28/11 11:37-124 (14410200)_110926A : 12			14062
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 36		R74718
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 36		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 36		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 13:11 / zeg		IC101-H_110906A : 20		R75119
Sulfate	ND	mg/L		1		E300.0	10/06/11 13:11 / zeg		IC101-H_110906A : 20		R75119
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	10/11/11 08:54 / sld		WATERCALC_111011A : 2		R75211
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Barium	ND	mg/L		0.005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Calcium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Copper	ND	mg/L		0.001		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Iron	ND	mg/L		0.05		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Magnesium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Nickel	ND	mg/L		0.01		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Potassium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Selenium	ND	mg/L		0.001		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11090405-002
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Sodium	ND	mg/L		1	E200.8		10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Zinc	ND	mg/L		0.01	E200.8		10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Antimony	ND	mg/L		0.003	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Arsenic	ND	mg/L		0.003	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Barium	ND	mg/L		0.005	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Beryllium	ND	mg/L		0.001	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Cadmium	ND	mg/L		0.00008	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Calcium	ND	mg/L		1	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Chromium	ND	mg/L		0.001	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Cobalt	ND	mg/L		0.01	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Copper	ND	mg/L		0.001	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Iron	ND	mg/L		0.03	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Lead	ND	mg/L		0.0005	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Magnesium	ND	mg/L		1	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Manganese	ND	mg/L		0.005	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Mercury	ND	mg/L		0.00001	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Nickel	ND	mg/L		0.01	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Potassium	ND	mg/L		1	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Selenium	ND	mg/L		0.001	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Silver	ND	mg/L		0.0005	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Sodium	ND	mg/L		1	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Zinc	ND	mg/L		0.01	E200.8		10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11090405-003
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:55 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	6.5	s.u.		0.1		A4500-H B	09/26/11 20:10 / zeg		MAN-TECH_110926A : 41		R74718
Conductivity	3	umhos/cm		1		A2510 B	09/26/11 11:55 / cmm		COND_110926A : 3510926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 16			14027
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	09/28/11 12:49 / cmm	09/28/11 11:37-124 (14410200)_110928A : 13			14062
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	09/26/11 20:10 / zeg		MAN-TECH_110926A : 40		R74718
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	09/26/11 20:10 / zeg		MAN-TECH_110926A : 40		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:10 / zeg		MAN-TECH_110926A : 40		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 13:25 / zeg		IC101-H_110906A : 21		R75119
Sulfate	ND	mg/L		1		E300.0	10/06/11 13:25 / zeg		IC101-H_110906A : 21		R75119
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	10/11/11 08:54 / sld		WATERCALC_111011A : 3		R75211
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Barium	0.007	mg/L		0.005		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Calcium	ND	mg/L		1		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Iron	0.06	mg/L		0.05		E200.8	10/07/11 19:19 / dck		ICPMS204-B_111007A : 44		R75194
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Magnesium	ND	mg/L		1		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:19 / dck		ICPMS204-B_111007A : 44		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Potassium	ND	mg/L		1		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11090405-003
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:55 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Sodium	ND	mg/L		1	E200.8		10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001	E245.1		10/06/11 15:11 / eli-b	09/29/11 08:55	SUB-B173749 : 1		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	0.08	mg/L		0.03	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Antimony	ND	mg/L		0.003	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Arsenic	ND	mg/L		0.003	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Barium	0.011	mg/L		0.005	E200.8		10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Beryllium	ND	mg/L		0.001	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Cadmium	0.00009	mg/L		0.00008	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Calcium	ND	mg/L		1	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Chromium	0.001	mg/L		0.001	E200.8		10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Cobalt	ND	mg/L		0.01	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Copper	0.001	mg/L		0.001	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Iron	0.17	mg/L		0.03	E200.8		10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Lead	ND	mg/L		0.0005	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Magnesium	ND	mg/L		1	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Manganese	0.006	mg/L		0.005	E200.8		10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Nickel	ND	mg/L		0.01	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Potassium	ND	mg/L		1	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Selenium	ND	mg/L		0.001	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Sodium	ND	mg/L		1	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Project: Section 35 Groundwater Baseline

Client Sample ID: S35MW09

Collection Date: 09/21/11 12:55

DateReceived: 09/23/11

Lab ID: H11090405-003

Report Date: 10/19/11

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
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METALS, TOTAL RECOVERABLE

-Total Recoverable metals detections were confirmed by independent analysis on a second instrument.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11090405-004
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 14:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 43		R74718
Conductivity	256	umhos/cm		1		A2510 B	09/26/11 11:55 / cmm		COND_110926A : 3610926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 17			14027
Solids, Total Dissolved TDS @ 180 C	158	mg/L		10		A2540 C	09/26/11 14:41 / cmm	09/26/11 14:04-124 (14410200)_110926B : 23			14030
INORGANICS											
Alkalinity, Total as CaCO ₃	160	mg/L		4		A2320 B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 42		R74718
Bicarbonate as HCO ₃	200	mg/L		4		A2320 B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 42		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 42		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 13:39 / zeg		IC101-H_110906A : 22		R75119
Sulfate	6	mg/L		1		E300.0	10/06/11 13:39 / zeg		IC101-H_110906A : 22		R75119
Hardness as CaCO ₃	140	mg/L		1		A2340 B	10/01/11 07:20 / wjj		CALC_111009A : 267		R75156
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Barium	0.254	mg/L		0.005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Calcium	30	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Iron	ND	mg/L		0.05		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Magnesium	16	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:28 / dck		ICPMS204-B_111007A : 46		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Potassium	1	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11090405-004
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 14:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Sodium	2	mg/L		1	E200.8		10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Antimony	ND	mg/L		0.003	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Arsenic	ND	mg/L		0.003	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Barium	0.258	mg/L		0.005	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Beryllium	ND	mg/L		0.001	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Cadmium	ND	mg/L		0.00008	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Calcium	31	mg/L		1	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Chromium	ND	mg/L		0.001	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Cobalt	ND	mg/L		0.01	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Copper	ND	mg/L		0.001	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Iron	ND	mg/L		0.03	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Lead	ND	mg/L		0.0005	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Magnesium	17	mg/L		1	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Manganese	ND	mg/L		0.005	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Mercury	ND	mg/L		0.00001	E200.8		10/07/11 19:33 / dck		ICPMS204-B_111007A : 47		R75194
Nickel	ND	mg/L		0.01	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Potassium	1	mg/L		1	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Selenium	ND	mg/L		0.001	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Sodium	2	mg/L		1	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11090405-005
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 16:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 45		R74718
Conductivity	299	umhos/cm		1		A2510 B	09/26/11 11:56 / cmm		COND_110926A : 3710926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	40	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 18			14027
Solids, Total Dissolved TDS @ 180 C	198	mg/L		10		A2540 C	09/26/11 14:41 / cmm	09/26/11 14:04-124 (14410200)_110926B : 24			14030
INORGANICS											
Alkalinity, Total as CaCO ₃	170	mg/L		4		A2320 B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 44		R74718
Bicarbonate as HCO ₃	210	mg/L		4		A2320 B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 44		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 44		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 13:53 / zeg		IC101-H_110906A : 23		R75119
Sulfate	4	mg/L		1		E300.0	10/06/11 13:53 / zeg		IC101-H_110906A : 23		R75119
Hardness as CaCO ₃	140	mg/L		1		A2340 B	10/01/11 07:29 / wjj		CALC_111009A : 278		R75156
METALS, DISSOLVED											
Aluminum	0.04	mg/L		0.03		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Barium	0.292	mg/L		0.005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Calcium	40	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Chromium	0.002	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Iron	ND	mg/L		0.05		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Magnesium	10	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Manganese	0.014	mg/L		0.005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:37 / dck		ICPMS204-B_111007A : 48		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Potassium	2	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11090405-005
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 16:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Sodium	11	mg/L		1	E200.8		10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001	E245.1		10/06/11 15:36 / eli-b	09/29/11 08:55	SUB-B173749 : 5		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	0.77	mg/L		0.03	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Antimony	ND	mg/L		0.003	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Arsenic	ND	mg/L		0.003	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Barium	0.317	mg/L		0.005	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Beryllium	ND	mg/L		0.001	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Cadmium	0.00011	mg/L		0.00008	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Calcium	41	mg/L		1	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Chromium	0.004	mg/L		0.001	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Cobalt	ND	mg/L		0.01	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Copper	0.002	mg/L		0.001	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Iron	0.72	mg/L		0.03	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Lead	0.0032	mg/L		0.0005	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Magnesium	10	mg/L		1	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Manganese	0.082	mg/L		0.005	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Nickel	ND	mg/L		0.01	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Potassium	2	mg/L		1	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Selenium	ND	mg/L		0.001	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Sodium	11	mg/L		1	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11090405-006
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 17:35 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 47		R74718
Conductivity	350	umhos/cm		1		A2510 B	09/26/11 11:57 / cmm		COND_110926A : 3810926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	20	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 19			14027
Solids, Total Dissolved TDS @ 180 C	228	mg/L		10		A2540 C	09/26/11 14:42 / cmm	09/26/11 14:04-124 (14410200)_110926B : 25			14030
INORGANICS											
Alkalinity, Total as CaCO ₃	210	mg/L		4		A2320 B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 46		R74718
Bicarbonate as HCO ₃	250	mg/L		4		A2320 B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 46		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 46		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 14:07 / zeg		IC101-H_110906A : 24		R75119
Sulfate	1	mg/L		1		E300.0	10/06/11 14:07 / zeg		IC101-H_110906A : 24		R75119
Hardness as CaCO ₃	198	mg/L		1		A2340 B	10/01/11 07:38 / wjj		CALC_111009A : 289		R75156
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Barium	0.808	mg/L		0.005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Calcium	54	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Iron	ND	mg/L		0.05		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Magnesium	15	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:42 / dck		ICPMS204-B_111007A : 49		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Potassium	1	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11090405-006
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 17:35 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Sodium	4	mg/L		1	E200.8		10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Zinc	ND	mg/L		0.01	E200.8		10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001	E245.1		10/06/11 15:39 / eli-b	09/29/11 08:55	SUB-B173749 : 6		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	0.33	mg/L		0.03	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Antimony	ND	mg/L		0.003	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Arsenic	ND	mg/L		0.003	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Barium	0.824	mg/L		0.005	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Beryllium	ND	mg/L		0.001	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Cadmium	ND	mg/L		0.00008	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Calcium	54	mg/L		1	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Chromium	0.002	mg/L		0.001	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Cobalt	ND	mg/L		0.01	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Copper	0.002	mg/L		0.001	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Iron	0.38	mg/L		0.03	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Lead	ND	mg/L		0.0005	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Magnesium	15	mg/L		1	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Manganese	0.012	mg/L		0.005	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Nickel	ND	mg/L		0.01	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Potassium	1	mg/L		1	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Selenium	ND	mg/L		0.001	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Silver	0.0005	mg/L		0.0005	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Sodium	4	mg/L		1	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Zinc	ND	mg/L		0.01	E200.8		10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11090405-007
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 49		R74718
Conductivity	298	umhos/cm		1		A2510 B	09/26/11 11:57 / cmm		COND_110926A : 3910926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	400	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 20			14027
Solids, Total Dissolved TDS @ 180 C	192	mg/L		10		A2540 C	09/26/11 14:42 / cmm	09/26/11 14:06-124 (14410200)_110926B : 28			14031
INORGANICS											
Alkalinity, Total as CaCO ₃	180	mg/L		4		A2320 B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 48		R74718
Bicarbonate as HCO ₃	220	mg/L		4		A2320 B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 48		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 48		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 14:49 / zeg		IC101-H_110906A : 27		R75119
Sulfate	2	mg/L		1		E300.0	10/06/11 14:49 / zeg		IC101-H_110906A : 27		R75119
Hardness as CaCO ₃	150	mg/L		1		A2340 B	10/01/11 08:05 / wjj		CALC_111009A : 300		R75156
METALS, DISSOLVED											
Aluminum	0.24	mg/L		0.03		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Barium	0.390	mg/L		0.005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Cadmium	0.00022	mg/L		0.00008		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Calcium	44	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Chromium	0.003	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Iron	0.27	mg/L		0.05		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Lead	0.0006	mg/L		0.0005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Magnesium	10	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Manganese	0.050	mg/L		0.005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:46 / dck		ICPMS204-B_111007A : 50		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Potassium	3	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35MW04

Lab ID: H11090405-007

Matrix: Aqueous

Project: Section 35 Groundwater Baseline

Collection Date: 09/21/11 18:15

DateReceived: 09/23/11

Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Sodium	2	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	10/06/11 15:41 / eli-b	09/29/11 08:55	SUB-B173749 : 7		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	3.41	mg/L		0.03		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Barium	0.485	mg/L		0.005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Cadmium	0.00045	mg/L		0.00008		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Calcium	48	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Chromium	0.040	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Copper	0.006	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Iron	5.77	mg/L		0.03		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Lead	0.0066	mg/L		0.0005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Magnesium	11	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Manganese	0.320	mg/L		0.005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Potassium	4	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Silver	ND	mg/L		0.0005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Sodium	3	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Zinc	0.03	mg/L		0.01		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11090405-008
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:25 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 56		R74718
Conductivity	294	umhos/cm		1		A2510 B	09/26/11 12:00 / cmm		COND_110926A : 4010926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	448	mg/L		10		A2540 D	09/26/11 14:21 / cmm	09/26/11 13:56-124 (14410200)_110926A : 21			14027
Solids, Total Dissolved TDS @ 180 C	188	mg/L		10		A2540 C	09/26/11 14:43 / cmm	09/26/11 14:06-124 (14410200)_110926B : 29			14031
INORGANICS											
Alkalinity, Total as CaCO ₃	180	mg/L		4		A2320 B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 55		R74718
Bicarbonate as HCO ₃	220	mg/L		4		A2320 B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 55		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 55		R74718
Chloride	ND	mg/L		1		E300.0	10/06/11 15:03 / zeg		IC101-H_110906A : 28		R75119
Sulfate	2	mg/L		1		E300.0	10/06/11 15:03 / zeg		IC101-H_110906A : 28		R75119
Hardness as CaCO ₃	149	mg/L		1		A2340 B	10/01/11 08:14 / wjj		CALC_111009A : 311		R75156
METALS, DISSOLVED											
Aluminum	0.22	mg/L		0.03		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Barium	0.374	mg/L		0.005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Cadmium	0.00021	mg/L		0.00008		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Calcium	43	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Chromium	0.003	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Iron	0.28	mg/L		0.05		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Lead	0.0006	mg/L		0.0005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Magnesium	10	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Manganese	0.045	mg/L		0.005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 20:10 / dck		ICPMS204-B_111007A : 55		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Potassium	3	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11090405-008
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:25 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Sodium	2	mg/L		1	E200.8		10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Thallium	ND	mg/L		0.0002	E200.8		10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Vanadium	ND	mg/L		0.1	E200.8		10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Zinc	ND	mg/L		0.01	E200.8		10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001	E245.1		10/03/11 15:56 / eli-b	10/03/11 08:37	SUB-B173547 : 9		B_57487
METALS, TOTAL RECOVERABLE											
Aluminum	3.99	mg/L		0.03	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Antimony	ND	mg/L		0.003	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Arsenic	ND	mg/L		0.003	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Barium	0.542	mg/L		0.005	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Beryllium	ND	mg/L		0.001	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Cadmium	0.00049	mg/L		0.00008	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Calcium	52	mg/L		1	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Chromium	0.043	mg/L		0.001	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Cobalt	ND	mg/L		0.01	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Copper	0.006	mg/L		0.001	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Iron	5.81	mg/L		0.03	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Lead	0.0070	mg/L		0.0005	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Magnesium	12	mg/L		1	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Manganese	0.354	mg/L		0.005	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Nickel	ND	mg/L		0.01	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Potassium	4	mg/L		1	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Selenium	ND	mg/L		0.001	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Silver	ND	mg/L		0.0005	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Sodium	3	mg/L		1	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Thallium	ND	mg/L		0.0002	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Vanadium	ND	mg/L		0.1	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Zinc	0.03	mg/L		0.01	E200.8		10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 110926A-COND-PROBE

Run ID :Run Order: COND_110926A: 6		SampType: Initial Calibration Verification Standard			Sample ID: ICV1_110926A			Method: A2510 B		
Analysis Date:	09/26/11 11:19	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	1010	1.0	1000	101	90	110				
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Associated samples: H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A

Run ID :Run Order: COND_110926A: 30		SampType: Continuing Calibration Verification Standard			Sample ID: CCV6_110926A			Method: A2510 B		
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Analysis Date:	09/26/11 11:50	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
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Conductivity	1420	1.0	1412	100	90	110				
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Associated samples: H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A

Run ID :Run Order: COND_110926A: 32		SampType: Sample Duplicate			Sample ID: H11090404-009ADUP			Method: A2510 B		
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Analysis Date:	09/26/11 11:52	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
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Conductivity	414	1.0					406.1	1.8	10	
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Associated samples: H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A

Run ID :Run Order: COND_110926A: 43		SampType: Sample Duplicate			Sample ID: H11090406-002ADUP			Method: A2510 B		
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Analysis Date:	09/26/11 13:11	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
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Conductivity	635	1.0					621.2	2.3	10	
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Associated samples: H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14013

Run ID :Run Order: ICPMS204-B_110930B: 108	SampType: Method Blank	Sample ID: MB-14013	Method: E200.8
Analysis Date: 10/01/11 06:17	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
Analytes 22	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Aluminum	0.003	0.0007	
Antimony	ND	4E-05	
Arsenic	9E-05	5E-05	
Barium	ND	9E-05	
Beryllium	ND	2E-05	
Cadmium	ND	2E-05	
Calcium	ND	0.04	
Chromium	ND	6E-05	
Cobalt	ND	3E-05	
Copper	ND	0.0004	
Iron	0.002	0.0006	
Lead	ND	2E-05	
Magnesium	0.004	0.003	
Manganese	ND	6E-05	
Nickel	ND	0.0002	
Potassium	ND	0.07	
Selenium	ND	0.0002	
Silver	ND	6E-05	
Sodium	0.1	0.04	
Thallium	ND	2E-05	
Vanadium	0.0002	5E-05	
Zinc	0.001	0.0003	

Associated samples: H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C; H11090405-008C

Run ID :Run Order: ICPMS204-B_111001A: 31	SampType: Laboratory Control Sample	Sample ID: LCS-14013	Method: E200.8
Analysis Date: 10/01/11 14:38	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
Analytes 17	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Aluminum	2.38	0.10	2.5 0.002941 95 85 115
Antimony	0.522	0.0030	0.5 104 85 115
Arsenic	0.486	0.0010	0.5 97 85 115
Barium	0.494	0.10	0.5 99 85 115
Beryllium	0.262	0.0010	0.25 105 85 115
Cadmium	0.251	0.0010	0.25 100 85 115

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14013

Run ID :Run Order: ICPMS204-B_111001A: 31		SampType: Laboratory Control Sample			Sample ID: LCS-14013			Method: E200.8				
Analysis Date: 10/01/11 14:38		Units: mg/L			Prep Info:		Prep Date: 9/26/2011		Prep Method: E200.2			
Analytes	17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium		0.497	0.010	0.5	0.0002715	99	85	115				
Cobalt		0.492	0.010	0.5		99	85	115				
Copper		0.507	0.010	0.5	0.0001844	101	85	115				
Lead		0.486	0.0010	0.5		97	85	115				
Manganese		2.49	0.010	2.5		100	85	115				
Nickel		0.487	0.010	0.5		97	85	115				
Selenium		0.511	0.0050	0.5		102	85	115				
Silver		0.0497	0.0050	0.05		99	85	115				
Thallium		0.502	0.0010	0.5	0.0001671	100	85	115				
Vanadium		0.494	0.10	0.5	0.0001999	99	85	115				
Zinc		0.496	0.010	0.5	0.001007	99	85	115				

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C; H11090405-008C**

Run ID :Run Order: ICPMS204-B_111001A: 34		SampType: Sample Matrix Spike			Sample ID: H11090372-001EMS3			Method: E200.8				
Analysis Date: 10/01/11 14:46		Units: mg/L			Prep Info:		Prep Date: 9/26/2011		Prep Method: E200.2			
Analytes	17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		3.86	0.10	2.5	0.9888	115	70	130				
Antimony		0.469	0.0030	0.5	0.0001232	94	70	130				
Arsenic		0.446	0.0010	0.5	0.006823	88	70	130				
Barium		0.400	0.10	0.5	0.02709	75	70	130				
Beryllium		0.212	0.0010	0.25	0.0001189	85	70	130				
Cadmium		0.206	0.0010	0.25	0.0000843	82	70	130				
Chromium		0.461	0.010	0.5	0.004157	91	70	130				
Cobalt		0.441	0.010	0.5	0.003118	88	70	130				
Copper		0.465	0.010	0.5	0.01512	90	70	130				
Lead		0.427	0.0010	0.5	0.001391	85	70	130				
Manganese		3.26	0.010	2.5	1.11	86	70	130				
Nickel		0.419	0.010	0.5	0.005299	83	70	130				
Selenium		0.493	0.0050	0.5	0.009741	97	70	130				
Silver		0.0396	0.0050	0.05	0.0001077	79	70	130				
Thallium		0.454	0.0010	0.5	0.0003155	91	70	130				
Vanadium		0.478	0.10	0.5	0.002729	95	70	130				
Zinc		0.444	0.010	0.5	0.05062	79	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14013

Run ID :Run Order: ICPMS204-B_111001A: 34	SampType: Sample Matrix Spike	Sample ID: H11090372-001EMS3	Method: E200.8
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Analysis Date: 10/01/11 14:46	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
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Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C; H11090405-008C

Run ID :Run Order: ICPMS204-B_111001A: 35	SampType: Sample Matrix Spike Duplicate	Sample ID: H11090372-001EMSD3	Method: E200.8
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Analysis Date: 10/01/11 14:49	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
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Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Aluminum	3.99	0.10	2.5	0.9888	120	70	130	3.863	3.2	20
Antimony	0.478	0.0030	0.5	0.0001232	95	70	130	0.4692	1.8	20
Arsenic	0.462	0.0010	0.5	0.006823	91	70	130	0.4459	3.5	20
Barium	0.404	0.10	0.5	0.02709	75	70	130	0.4004	0.9	20
Beryllium	0.219	0.0010	0.25	0.0001189	88	70	130	0.2123	3.1	20
Cadmium	0.202	0.0010	0.25	0.0000843	81	70	130	0.2057	1.9	20
Chromium	0.479	0.010	0.5	0.004157	95	70	130	0.4614	3.8	20
Cobalt	0.452	0.010	0.5	0.003118	90	70	130	0.4412	2.4	20
Copper	0.514	0.010	0.5	0.01512	100	70	130	0.4653	9.9	20
Lead	0.443	0.0010	0.5	0.001391	88	70	130	0.4267	3.7	20
Manganese	3.41	0.010	2.5	1.11	92	70	130	3.265	4.2	20
Nickel	0.431	0.010	0.5	0.005299	85	70	130	0.4186	3.0	20
Selenium	0.526	0.0050	0.5	0.009741	103	70	130	0.493	6.5	20
Silver	0.0409	0.0050	0.05	0.0001077	82	70	130	0.03964	3.1	20
Thallium	0.474	0.0010	0.5	0.0003155	95	70	130	0.4545	4.2	20
Vanadium	0.496	0.10	0.5	0.002729	99	70	130	0.4781	3.6	20
Zinc	0.451	0.010	0.5	0.05062	80	70	130	0.4438	1.7	20

Associated samples: H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C; H11090405-008C

Run ID :Run Order: ICPMS204-B_111007A: 36	SampType: Method Blank	Sample ID: MB-14013	Method: E200.8
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Analysis Date: 10/07/11 18:42	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
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Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Aluminum	0.003	0.0007
Antimony	ND	4E-05
Arsenic	ND	5E-05
Barium	ND	9E-05
Beryllium	ND	2E-05

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14013

Run ID :Run Order: ICPMS204-B_111007A: 36	SampType: Method Blank	Sample ID: MB-14013	Method: E200.8
Analysis Date: 10/07/11 18:42	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
Analytes 22	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Cadmium	ND	2E-05	
Calcium	ND	0.04	
Chromium	0.0001	6E-05	
Cobalt	ND	3E-05	
Copper	ND	0.0004	
Iron	0.001	0.0006	
Lead	ND	2E-05	
Magnesium	0.004	0.003	
Manganese	ND	6E-05	
Nickel	ND	0.0002	
Potassium	ND	0.07	
Selenium	ND	0.0002	
Silver	ND	6E-05	
Sodium	0.06	0.04	
Thallium	ND	2E-05	
Vanadium	0.0001	5E-05	
Zinc	0.0009	0.0003	

Associated samples: H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C; H11090405-008C

Run ID :Run Order: ICPMS204-B_111010A: 136	SampType: Method Blank	Sample ID: MB-14013	Method: E200.8
Analysis Date: 10/10/11 20:14	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
Analytes 22	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Aluminum	0.003	0.0007	
Antimony	ND	4E-05	
Arsenic	0.0001	5E-05	
Barium	ND	9E-05	
Beryllium	3E-05	2E-05	
Cadmium	ND	2E-05	
Calcium	ND	0.04	
Chromium	7E-05	6E-05	
Cobalt	0.0002	3E-05	
Copper	ND	0.0004	
Iron	0.002	0.0006	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14013

Run ID :Run Order: ICPMS204-B_111010A: 136	SampType: Method Blank	Sample ID: MB-14013	Method: E200.8
Analysis Date: 10/10/11 20:14	Units: mg/L	Prep Info: Prep Date: 9/26/2011	Prep Method: E200.2
Analytes 22	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Lead	ND	2E-05	
Magnesium	0.004	0.003	
Manganese	ND	6E-05	
Nickel	ND	0.0002	
Potassium	ND	0.07	
Selenium	ND	0.0002	
Silver	ND	6E-05	
Sodium	0.4	0.04	
Thallium	ND	2E-05	
Vanadium	0.0002	5E-05	
Zinc	0.0008	0.0003	

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C; H11090405-008C**

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14027

Run ID :Run Order:	ACCU-124 (14410200)_110926A: 1	SampType:	Method Blank	Sample ID:	MB-14027	Method:	A2540 D
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Analysis Date:	09/26/11 14:16	Units:	mg/L	Prep Info:	Prep Date:	9/26/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	3									
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order:	ACCU-124 (14410200)_110926A: 2	SampType:	Laboratory Control Sample	Sample ID:	LCS-14027	Method:	A2540 D
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Analysis Date:	09/26/11 14:16	Units:	mg/L	Prep Info:	Prep Date:	9/26/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	1770	10	2000	89	70	130					
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order:	ACCU-124 (14410200)_110926A: 4	SampType:	Sample Duplicate	Sample ID:	H11090404-001ADUP	Method:	A2540 D
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Analysis Date:	09/26/11 14:16	Units:	mg/L	Prep Info:	Prep Date:	9/26/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	10										5
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order:	ACCU-124 (14410200)_110926A: 15	SampType:	Sample Duplicate	Sample ID:	H11090405-002ADUP	Method:	A2540 D
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Analysis Date:	09/26/11 14:19	Units:	mg/L	Prep Info:	Prep Date:	9/26/2011	Prep Method:	A2540 D
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Suspended TSS @ 105 C	ND	10										5
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: Section 35 Groundwater Baseline

BatchID: 14030

Date: 19-Oct-11

Run ID :Run Order: ACCU-124 (14410200)_110926B: 1 SampType: Method Blank				Sample ID: MB-14030				Method: A2540 C			
Analysis Date: 09/26/11 14:35		Units: mg/L		Prep Info:		Prep Date: 9/26/2011		Prep Method: A2540 C			
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	ND	3									

Associated samples: **H11090405-001A; H11090405-004A; H11090405-005A; H11090405-006A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 2 SampType: Laboratory Control Sample				Sample ID: LCS-14030				Method: A2540 C			
Analysis Date: 09/26/11 14:36		Units: mg/L		Prep Info:		Prep Date: 9/26/2011		Prep Method: A2540 C			
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2010	10	2000		101	90	110				

Associated samples: **H11090405-001A; H11090405-004A; H11090405-005A; H11090405-006A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 9 SampType: Sample Duplicate				Sample ID: H11090404-001ADUP				Method: A2540 C			
Analysis Date: 09/26/11 14:38		Units: mg/L		Prep Info:		Prep Date: 9/26/2011		Prep Method: A2540 C			
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	184	10				182			1.1		5

Associated samples: **H11090405-001A; H11090405-004A; H11090405-005A; H11090405-006A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 11 SampType: Sample Matrix Spike				Sample ID: H11090404-002AMS				Method: A2540 C			
Analysis Date: 09/26/11 14:38		Units: mg/L		Prep Info:		Prep Date: 9/26/2011		Prep Method: A2540 C			
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	2140	10	2000	174	98	80	120				

Associated samples: **H11090405-001A; H11090405-004A; H11090405-005A; H11090405-006A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 16 SampType: Sample Duplicate				Sample ID: H11090404-006ADUP				Method: A2540 C			
Analysis Date: 09/26/11 14:39		Units: mg/L		Prep Info:		Prep Date: 9/26/2011		Prep Method: A2540 C			
Analyses 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C	150	10				146			2.7		5

Associated samples: **H11090405-001A; H11090405-004A; H11090405-005A; H11090405-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14031

Run ID :Run Order: ACCU-124 (14410200)_110926B: 26 SampType: Method Blank Sample ID: MB-14031 Method: A2540 C

Analysis Date: 09/26/11 14:42 Units: mg/L Prep Info: Prep Date: 9/26/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 3 3

Associated samples: **H11090405-007A; H11090405-008A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 27 SampType: Laboratory Control Sample Sample ID: LCS-14031 Method: A2540 C

Analysis Date: 09/26/11 14:42 Units: mg/L Prep Info: Prep Date: 9/26/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 2010 10 2000 3 100 90 110

Associated samples: **H11090405-007A; H11090405-008A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 34 SampType: Sample Duplicate Sample ID: H11090406-004ADUP Method: A2540 C

Analysis Date: 09/26/11 14:44 Units: mg/L Prep Info: Prep Date: 9/26/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 294 10 320 8.5 5 R

Associated samples: **H11090405-007A; H11090405-008A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 36 SampType: Sample Matrix Spike Sample ID: H11090406-005AMS Method: A2540 C

Analysis Date: 09/26/11 14:45 Units: mg/L Prep Info: Prep Date: 9/26/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C 2390 10 2000 396 100 80 120

Associated samples: **H11090405-007A; H11090405-008A**

Run ID :Run Order: ACCU-124 (14410200)_110926B: 46 SampType: Sample Duplicate Sample ID: H11090406-014ADUP Method: A2540 C

Analysis Date: 09/26/11 14:48 Units: mg/L Prep Info: Prep Date: 9/26/2011 Prep Method: A2540 C

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C ND 10 6 5

Associated samples: **H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: 14062

Run ID :Run Order: ACCU-124 (14410200)_110928A: 1	SampType: Method Blank	Sample ID: MB-14062	Method: A2540 C
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Analysis Date: 09/28/11 12:47	Units: mg/L	Prep Info: Prep Date: 9/28/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	ND	3									
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Associated samples: **H11090405-002A; H11090405-003A**

Run ID :Run Order: ACCU-124 (14410200)_110928A: 2	SampType: Laboratory Control Sample	Sample ID: LCS-14062	Method: A2540 C
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Analysis Date: 09/28/11 12:47	Units: mg/L	Prep Info: Prep Date: 9/28/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	1980	10	2000		99	90	110				
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Associated samples: **H11090405-002A; H11090405-003A**

Run ID :Run Order: ACCU-124 (14410200)_110928A: 4	SampType: Sample Duplicate	Sample ID: H11090259-001ADUP	Method: A2540 C
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Analysis Date: 09/28/11 12:47	Units: mg/L	Prep Info: Prep Date: 9/30/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	400	10				398			0.5	5	
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Associated samples: **H11090405-002A; H11090405-003A**

Run ID :Run Order: ACCU-124 (14410200)_110928A: 6	SampType: Sample Matrix Spike Duplicate	Sample ID: H11090298-005AMS	Method: A2540 C
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Analysis Date: 09/28/11 12:48	Units: mg/L	Prep Info: Prep Date: 9/30/2011	Prep Method: A2540 C
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Solids, Total Dissolved TDS @ 180 C	1980	10	2000	4	99	80	120				
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Associated samples: **H11090405-002A; H11090405-003A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: B_111003zz

Run ID :Run Order: SUB-B173547: 5	SampType: Initial Calibration Verification Standard				Sample ID: QCS			Method: E245.1			
Analysis Date: 10/03/11 15:14	Units: mg/L				Prep Info:			Prep Date:			
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0019	0.00020	0.002		95	90	110				

Associated samples: **H11090405-008C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: B_11106ZZ

Run ID :Run Order: SUB-B173749: 13	SampType: Initial Calibration Verification Standard				Sample ID: QCS			Method: E245.1		
Analysis Date: 10/06/11 14:27	Units: mg/L				Prep Info: Prep Date:			Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit Qual
Mercury	4.7E-05	0.0010	0.00005		95	90	110			

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: B_57426

Run ID :Run Order: SUB-B173749: 11		SampType: Sample Matrix Spike Duplicate				Sample ID: H11090405-003C				Method: E245.1		
Analysis Date: 10/06/11 15:32		Units: mg/L				Prep Info: Prep Date: 9/29/2011				Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		5.5E-05	0.0010	0.00005		110	70	130	0.0000548			30

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C**

Run ID :Run Order: SUB-B173749: 14		SampType: Method Blank				Sample ID: MB-57426				Method: E245.1		
Analysis Date: 10/06/11 14:40		Units: mg/L				Prep Info: Prep Date: 9/29/2011				Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND		1E-06								

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C**

Run ID :Run Order: SUB-B173749: 15		SampType: Laboratory Control Sample				Sample ID: LCS-57426				Method: E245.1		
Analysis Date: 10/06/11 14:45		Units: mg/L				Prep Info: Prep Date: 9/29/2011				Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		4.9E-05	0.0010	0.00005		98	85	115				

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C**

Run ID :Run Order: SUB-B173749: 16		SampType: Sample Matrix Spike				Sample ID: H11090405-003C				Method: E245.1		
Analysis Date: 10/06/11 15:29		Units: mg/L				Prep Info: Prep Date: 9/29/2011				Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		5.5E-05	0.0010	0.00005		110	70	130				

Associated samples: **H11090405-001C; H11090405-003C; H11090405-005C; H11090405-006C; H11090405-007C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: B_57487

Run ID :Run Order: **SUB-B173547: 1** SampType: Sample Matrix Spike Duplicate Sample ID: H11090405-008C Method: E245.1

Analysis Date: 10/03/11 16:39 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0018	0.0010	0.002	0.0000123	87	70	130	0.00154	13	30
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Associated samples: **H11090405-008C**

Run ID :Run Order: **SUB-B173547: 2** SampType: Sample Matrix Spike Sample ID: H11090405-008C Method: E245.1

Analysis Date: 10/03/11 16:35 Units: mg/L Prep Info: Prep Date: 10/3/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0017	0.0010	0.002	0.0000123	85	70	130			
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Associated samples: **H11090405-008C**

Run ID :Run Order: **SUB-B173547: 3** SampType: Laboratory Control Sample Sample ID: LCS-57487 Method: E245.1

Analysis Date: 10/03/11 15:37 Units: mg/L Prep Info: Prep Date: 10/3/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0019	0.0010	0.002		96	85	115			
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Associated samples: **H11090405-008C**

Run ID :Run Order: **SUB-B173547: 4** SampType: Method Blank Sample ID: MB-57487 Method: E245.1

Analysis Date: 10/03/11 15:33 Units: mg/L Prep Info: Prep Date: 10/3/2011 Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	ND	1E-06								
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Associated samples: **H11090405-008C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: Section 35 Groundwater Baseline

BatchID: R74718

Date: 19-Oct-11

Run ID :Run Order: MAN-TECH_110926A: 8	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
Analysis Date: 09/26/11 17:52	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	2	2	

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 10	SampType: Laboratory Control Sample	Sample ID: LCS-09232011	Method: A2320 B
Analysis Date: 09/26/11 18:00	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	610	4.0	600 2.06 102 90 110

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 18	SampType: Sample Duplicate	Sample ID: H11090402-003ADUP	Method: A2320 B
Analysis Date: 09/26/11 18:33	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	310	4.0	306 0.4 10
Bicarbonate as HCO3	370	4.0	373.3 0.4 10
Carbonate as CO3	ND	4.0	10

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 27	SampType: Sample Matrix Spike	Sample ID: H11090404-004AMS	Method: A2320 B
Analysis Date: 09/26/11 19:16	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	640	4.0	600 106 80 120

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 38	SampType: Sample Duplicate	Sample ID: H11090405-002ADUP	Method: A2320 B
Analysis Date: 09/26/11 20:05	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	1.9	4.0	10
Bicarbonate as HCO3	2.3	4.0	2.2 10
Carbonate as CO3	ND	4.0	10

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74718

Run ID :Run Order: MAN-TECH_110926A: 38	SampType: Sample Duplicate	Sample ID: H11090405-002ADUP	Method: A2320 B
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Analysis Date: 09/26/11 20:05	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 51	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
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Analysis Date: 09/26/11 20:47	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	ND	4.0
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 53	SampType: Laboratory Control Sample	Sample ID: LCS-09232011	Method: A2320 B
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Analysis Date: 09/26/11 20:56	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	610	4.0	600	102	90	110
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 61	SampType: Sample Duplicate	Sample ID: H11090406-002ADUP	Method: A2320 B
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Analysis Date: 09/26/11 21:24	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	140	4.0				138.2	0.2	10
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Bicarbonate as HCO ₃	170	4.0				168.7	0.2	10
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Carbonate as CO ₃	ND	4.0						10
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 71	SampType: Sample Matrix Spike	Sample ID: H11090406-006AMS	Method: A2320 B
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Analysis Date: 09/26/11 22:02	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO ₃	750	4.0	600	139.2	102	80	120				
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74718

Run ID :Run Order: **MAN-TECH_110926A: 87** SampType: **Sample Duplicate** Sample ID: **H11090406-013ADUP** Method: **A2320 B**

Analysis Date: **09/26/11 22:57** Units: **mg/L** Prep Info: Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total as CaCO ₃	100	4.0						100.2	0.2	10	
Bicarbonate as HCO ₃	120	4.0						122.2	0.2	10	
Carbonate as CO ₃	ND	4.0								10	

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: Section 35 Groundwater Baseline

BatchID: R74718

Date: 19-Oct-11

Run ID :Run Order: MAN-TECH_110926A: 2		SampType: Continuing Calibration Verification Standard			Sample ID: CCV1-2199			Method: A4500-H B				
Analysis Date: 09/26/11 17:34		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		3.91	0.10	4		98	97	103				

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 3		SampType: Continuing Calibration Verification Standard			Sample ID: CCV-2145			Method: A4500-H B				
Analysis Date: 09/26/11 17:37		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		7.02	0.10	7		100	98	102				

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A**

Run ID :Run Order: MAN-TECH_110926A: 4		SampType: Continuing Calibration Verification Standard			Sample ID: CCV3-2042			Method: A4500-H B				
Analysis Date: 09/26/11 17:40		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		10.0	0.10	10		101	99	101				

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 5		SampType: Initial Calibration Verification Standard			Sample ID: ICV-2100			Method: A4500-H B				
Analysis Date: 09/26/11 17:43		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		6.99	0.10	7		100	98	102				

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 39		SampType: Sample Duplicate			Sample ID: H11090405-002ADUP			Method: A4500-H B				
Analysis Date: 09/26/11 20:05		Units: s.u.			Prep Info: Prep Date:			Prep Method:				
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		5.56	0.10				5.84		4.9	3	R	

Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74718

Run ID :Run Order: MAN-TECH_110926A: 50	SampType: Continuing Calibration Verification Standard	Sample ID: CCV-2145	Method: A4500-H B
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Analysis Date: 09/26/11 20:42	Units: s.u.	Prep Info: Prep Date:	Prep Method:
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	7.06	0.10	7	101	98	102						
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Associated samples: **H11090405-008A**

Run ID :Run Order: MAN-TECH_110926A: 62	SampType: Sample Duplicate	Sample ID: H11090406-002ADUP	Method: A4500-H B
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Analysis Date: 09/26/11 21:24	Units: s.u.	Prep Info: Prep Date:	Prep Method:
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Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	8.04	0.10				8.03	0.1	3				
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Associated samples: **H11090405-001A; H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74807

Run ID :Run Order: ICPMS204-B_110927B: 8 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 09/27/11 20:33 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.251	0.10	0.25		100	90	110				
Antimony	0.0512	0.050	0.05		102	90	110				
Arsenic	0.0499	0.0050	0.05		100	90	110				
Barium	0.0500	0.10	0.05		100	90	110				
Beryllium	0.0256	0.0010	0.025		103	90	110				
Cadmium	0.0270	0.0010	0.025		108	90	110				
Calcium	2.59	0.50	2.5		104	90	110				
Chromium	0.0511	0.010	0.05		102	90	110				
Cobalt	0.0521	0.010	0.05		104	90	110				
Copper	0.0518	0.010	0.05		104	90	110				
Iron	0.255	0.030	0.25		102	90	110				
Lead	0.0511	0.010	0.05		102	90	110				
Magnesium	2.57	0.50	2.5		103	90	110				
Manganese	0.250	0.010	0.25		100	90	110				
Nickel	0.0513	0.010	0.05		103	90	110				
Potassium	2.51	0.50	2.5		100	90	110				
Selenium	0.0504	0.0050	0.05		101	90	110				
Silver	0.0247	0.0050	0.025		99	90	110				
Sodium	2.55	0.50	2.5		102	90	110				
Thallium	0.0518	0.10	0.05		104	90	110				
Vanadium	0.0499	0.10	0.05		100	90	110				
Zinc	0.0509	0.010	0.05		102	90	110				

Associated samples: **H11090405-001B**

Run ID :Run Order: ICPMS204-B_110927B: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/27/11 20:37 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.7	0.10	40		102	70	130				
Antimony	0.000347	0.050									
Arsenic	0.000190	0.0050									
Barium	0.000168	0.10									
Beryllium	4.00E-06	0.0010									
Cadmium	0.000373	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74807

Run ID :Run Order: ICPMS204-B_110927B: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 09/27/11 20:37 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	120	0.50	120		100	70	130				
Chromium	0.00221	0.010									
Cobalt	0.00183	0.010									
Copper	0.000536	0.010									
Iron	102	0.030	100		102	70	130				
Lead	7.60E-05	0.010									
Magnesium	42.6	0.50	40		107	70	130				
Manganese	0.00220	0.010									
Nickel	0.00142	0.010									
Potassium	41.8	0.50	40		105	70	130				
Selenium	7.90E-05	0.0050									
Silver	0.000249	0.0050									
Sodium	105	0.50	100		105	70	130				
Thallium	1.70E-05	0.10									
Vanadium	0.000158	0.10									
Zinc	0.00114	0.010									

Associated samples: H11090405-001B

Run ID :Run Order: ICPMS204-B_110927B: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/27/11 20:42 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.8	0.10	40		102	70	130				
Antimony	0.000342	0.050				0	0				
Arsenic	0.0109	0.0050	0.01		109	70	130				
Barium	0.000166	0.10				0	0				
Beryllium	2.00E-06	0.0010				0	0				
Cadmium	0.0104	0.0010	0.01		104	70	130				
Calcium	119	0.50	120		99	70	130				
Chromium	0.0231	0.010	0.02		116	70	130				
Cobalt	0.0241	0.010	0.02		121	70	130				
Copper	0.0214	0.010	0.02		107	70	130				
Iron	100.0	0.030	100		100	70	130				
Lead	6.40E-05	0.010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74807

Run ID :Run Order: ICPMS204-B_110927B: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 09/27/11 20:42 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	42.7	0.50	40		107	70	130				
Manganese	0.0231	0.010	0.02		115	70	130				
Nickel	0.0227	0.010	0.02		114	70	130				
Potassium	41.9	0.50	40		105	70	130				
Selenium	0.0101	0.0050	0.01		101	70	130				
Silver	0.0210	0.0050	0.02		105	70	130				
Sodium	105	0.50	100		105	70	130				
Thallium	9.00E-06	0.10				0	0				
Vanadium	0.0212	0.10	0.02		106	70	130				
Zinc	0.0112	0.010	0.01		113	70	130				

Associated samples: **H11090405-001B**

Run ID :Run Order: ICPMS204-B_110927B: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 09/27/11 21:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0008	0.0003									
Antimony	ND	7E-06									
Arsenic	ND	3E-05									
Barium	9E-05	3E-05									
Beryllium	ND	2E-05									
Cadmium	ND	1E-05									
Calcium	0.005	0.003									
Chromium	6E-05	6E-05									
Cobalt	ND	9E-06									
Copper	4E-05	3E-05									
Iron	0.001	0.0002									
Lead	ND	1.0E-05									
Magnesium	0.001	0.0007									
Manganese	ND	1E-05									
Nickel	ND	5E-05									
Potassium	0.02	0.010									
Selenium	ND	4E-05									
Silver	9E-05	3E-05									

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74807

Run ID :Run Order: ICPMS204-B_110927B: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 09/27/11 21:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	0.02	0.003									
Thallium	ND	7E-06									
Vanadium	ND	1E-05									
Zinc	0.0009	0.0003									

Associated samples: **H11090405-001B**

Run ID :Run Order: ICPMS204-B_110927B: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 09/27/11 21:13 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0521	0.10	0.05	0.0007996	103	85	115				
Antimony	0.0506	0.050	0.05		101	85	115				
Arsenic	0.0496	0.0050	0.05		99	85	115				
Barium	0.0505	0.10	0.05	0.0000934	101	85	115				
Beryllium	0.0497	0.0010	0.05		99	85	115				
Cadmium	0.0489	0.0010	0.05		98	85	115				
Calcium	47.2	0.50	50	0.00461	94	85	115				
Chromium	0.0503	0.010	0.05	0.0000642	100	85	115				
Cobalt	0.0500	0.010	0.05		100	85	115				
Copper	0.0495	0.010	0.05	0.0000438	99	85	115				
Iron	4.86	0.030	5	0.001012	97	85	115				
Lead	0.0505	0.010	0.05		101	85	115				
Magnesium	47.6	0.50	50	0.001123	95	85	115				
Manganese	0.0504	0.010	0.05		101	85	115				
Nickel	0.0488	0.010	0.05		98	85	115				
Potassium	47.5	0.50	50	0.0179	95	85	115				
Selenium	0.0494	0.0050	0.05		99	85	115				
Silver	0.0196	0.0050	0.02	0.0000913	98	85	115				
Sodium	48.1	0.50	50	0.01927	96	85	115				
Thallium	0.0515	0.10	0.05		103	85	115				
Vanadium	0.0499	0.10	0.05		100	85	115				
Zinc	0.0504	0.010	0.05	0.0008875	99	85	115				

Associated samples: **H11090405-001B**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74807

Run ID :Run Order: ICPMS204-B_110927B: 153 SampType: Sample Matrix Spike Sample ID: H11090404-004BMS Method: E200.8

Analysis Date: 09/28/11 07:29 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0589	0.10	0.05	0.008431	101	70	130				
Antimony	0.0505	0.0050	0.05		101	70	130				
Arsenic	0.0492	0.0050	0.05	0.0001724	98	70	130				
Barium	0.0506	0.10	0.05	0.0000681	101	70	130				
Beryllium	0.0496	0.0010	0.05		99	70	130				
Cadmium	0.0493	0.0010	0.05		99	70	130				
Calcium	45.4	1.0	50	0.02078	91	70	130				
Chromium	0.0502	0.010	0.05		100	70	130				
Cobalt	0.0494	0.010	0.05		99	70	130				
Copper	0.0503	0.010	0.05		101	70	130				
Iron	4.82	0.030	5	0.001678	96	70	130				
Lead	0.0508	0.010	0.05	0.0000503	101	70	130				
Magnesium	49.5	1.0	50	0.003646	99	70	130				
Manganese	0.0516	0.010	0.05	0.001351	100	70	130				
Nickel	0.0495	0.010	0.05		99	70	130				
Potassium	45.7	1.0	50		91	70	130				
Selenium	0.0503	0.0050	0.05		101	70	130				
Silver	0.0192	0.0050	0.02		96	70	130				
Sodium	50.3	1.0	50	0.1165	100	70	130				
Thallium	0.0516	0.0050	0.05		103	70	130				
Vanadium	0.0493	0.10	0.05		99	70	130				
Zinc	0.0508	0.010	0.05	0.001037	99	70	130				

Associated samples: **H11090405-001B**

Run ID :Run Order: ICPMS204-B_110927B: 154 SampType: Sample Matrix Spike Duplicate Sample ID: H11090404-004BMSD Method: E200.8

Analysis Date: 09/28/11 07:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0586	0.10	0.05	0.008431	100	70	130	0.0589		20	
Antimony	0.0501	0.0050	0.05		100	70	130	0.05048	0.8	20	
Arsenic	0.0495	0.0050	0.05	0.0001724	99	70	130	0.04918	0.7	20	
Barium	0.0508	0.10	0.05	0.0000681	102	70	130	0.0506		20	
Beryllium	0.0491	0.0010	0.05		98	70	130	0.04963	1.0	20	
Cadmium	0.0494	0.0010	0.05		99	70	130	0.04928	0.3	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74807

Run ID :Run Order: ICPMS204-B_110927B: 154 SampType: Sample Matrix Spike Duplicate Sample ID: H11090404-004BMSD Method: E200.8

Analysis Date: 09/28/11 07:34

Units: mg/L

Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	45.5	1.0	50	0.02078	91	70	130	45.45	0.0	20	
Chromium	0.0502	0.010	0.05		100	70	130	0.05018	0.0	20	
Cobalt	0.0490	0.010	0.05		98	70	130	0.04936	0.7	20	
Copper	0.0498	0.010	0.05		100	70	130	0.0503	0.9	20	
Iron	4.87	0.030	5	0.001678	97	70	130	4.82	0.9	20	
Lead	0.0496	0.010	0.05	0.0000503	99	70	130	0.05076	2.4	20	
Magnesium	48.2	1.0	50	0.003646	96	70	130	49.46	2.5	20	
Manganese	0.0514	0.010	0.05	0.001351	100	70	130	0.05156	0.4	20	
Nickel	0.0492	0.010	0.05		98	70	130	0.0495	0.5	20	
Potassium	45.9	1.0	50		92	70	130	45.71	0.4	20	
Selenium	0.0501	0.0050	0.05		100	70	130	0.05031	0.5	20	
Silver	0.0192	0.0050	0.02		96	70	130	0.01921	0.2	20	
Sodium	49.3	1.0	50	0.1165	98	70	130	50.31	2.0	20	
Thallium	0.0502	0.0050	0.05		100	70	130	0.05161	2.8	20	
Vanadium	0.0495	0.10	0.05		99	70	130	0.04932		20	
Zinc	0.0507	0.010	0.05	0.001037	99	70	130	0.05075	0.1	20	

Associated samples: H11090405-001B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 09/30/11 18:07 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0469	0.10	0.05		94	85	115				
Antimony	0.0474	0.050	0.05		95	85	115				
Arsenic	0.0473	0.0050	0.05		95	85	115				
Barium	0.0478	0.10	0.05		96	85	115				
Beryllium	0.0461	0.0010	0.05		92	85	115				
Cadmium	0.0460	0.0010	0.05		92	85	115				
Calcium	45.8	0.50	50		92	85	115				
Chromium	0.0473	0.010	0.05		95	85	115				
Cobalt	0.0474	0.010	0.05		95	85	115				
Copper	0.0470	0.010	0.05		94	85	115				
Iron	4.79	0.030	5	0.0002543	96	85	115				
Lead	0.0484	0.010	0.05		97	85	115				
Magnesium	46.0	0.50	50	0.0009685	92	85	115				
Manganese	0.0468	0.010	0.05	0.0000133	94	85	115				
Nickel	0.0470	0.010	0.05		94	85	115				
Potassium	47.1	0.50	50	0.01832	94	85	115				
Silver	0.0186	0.0050	0.02	0.0002258	92	85	115				
Sodium	46.7	0.50	50	0.0126	93	85	115				
Thallium	0.0489	0.10	0.05		98	85	115				
Vanadium	0.0480	0.10	0.05		96	85	115				
Zinc	0.0472	0.010	0.05		94	85	115				

Associated samples: H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B;
H11090405-008B

Run ID :Run Order: ICPMS204-B_110930B: 58 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 10/01/11 02:32 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.244	0.10	0.25		98	90	110				
Antimony	0.0488	0.050	0.05		98	90	110				
Arsenic	0.0480	0.0050	0.05		96	90	110				
Barium	0.0484	0.10	0.05		97	90	110				
Beryllium	0.0251	0.0010	0.025		101	90	110				
Cadmium	0.0263	0.0010	0.025		105	90	110				
Calcium	2.54	0.50	2.5		102	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 58 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 10/01/11 02:32 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.0489	0.010	0.05		98	90	110				
Cobalt	0.0500	0.010	0.05		100	90	110				
Copper	0.0504	0.010	0.05		101	90	110				
Iron	0.252	0.030	0.25		101	90	110				
Lead	0.0492	0.010	0.05		98	90	110				
Magnesium	2.54	0.50	2.5		102	90	110				
Manganese	0.245	0.010	0.25		98	90	110				
Nickel	0.0495	0.010	0.05		99	90	110				
Potassium	2.48	0.50	2.5		99	90	110				
Selenium	0.0502	0.0050	0.05		100	90	110				
Silver	0.0243	0.0050	0.025		97	90	110				
Sodium	2.54	0.50	2.5		102	90	110				
Thallium	0.0488	0.10	0.05		98	90	110				
Vanadium	0.0485	0.10	0.05		97	90	110				
Zinc	0.0507	0.010	0.05		101	90	110				

Associated samples: H11090405-001C; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-003C; H11090405-004B; H11090405-004C; H11090405-005B;
H11090405-005C; H11090405-006B; H11090405-006C; H11090405-007B; H11090405-007C; H11090405-008B

Run ID :Run Order: ICPMS204-B_110930B: 59 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 10/01/11 02:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.2	0.10	40		95	70	130				
Antimony	0.000317	0.050									
Arsenic	0.000140	0.0050									
Barium	0.000164	0.10									
Beryllium	1.50E-05	0.0010									
Cadmium	0.000686	0.0010									
Calcium	114	0.50	120		95	70	130				
Chromium	0.00200	0.010									
Cobalt	0.00158	0.010									
Copper	0.000331	0.010									
Iron	96.0	0.030	100		96	70	130				
Lead	6.20E-05	0.010									
Magnesium	40.8	0.50	40		102	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 59 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 10/01/11 02:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.00192	0.010									
Nickel	0.00132	0.010									
Potassium	39.6	0.50	40		99	70	130				
Selenium	0.000119	0.0050									
Silver	6.50E-05	0.0050									
Sodium	103	0.50	100		103	70	130				
Thallium	1.50E-05	0.10									
Vanadium	0.000185	0.10									
Zinc	0.000773	0.010									

Associated samples: **H11090405-001C; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-003C; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-005C; H11090405-006B; H11090405-006C; H11090405-007B; H11090405-007C; H11090405-008B**

Run ID :Run Order: ICPMS204-B_110930B: 60 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 10/01/11 02:41 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.2	0.10	40		96	70	130				
Antimony	0.000280	0.050				0	0				
Arsenic	0.00986	0.0050	0.01		99	70	130				
Barium	0.000139	0.10				0	0				
Beryllium	1.50E-05	0.0010				0	0				
Cadmium	0.0102	0.0010	0.01		102	70	130				
Calcium	114	0.50	120		95	70	130				
Chromium	0.0215	0.010	0.02		108	70	130				
Cobalt	0.0205	0.010	0.02		103	70	130				
Copper	0.0194	0.010	0.02		97	70	130				
Iron	96.7	0.030	100		97	70	130				
Lead	5.90E-05	0.010				0	0				
Magnesium	41.5	0.50	40		104	70	130				
Manganese	0.0206	0.010	0.02		103	70	130				
Nickel	0.0208	0.010	0.02		104	70	130				
Potassium	39.1	0.50	40		98	70	130				
Selenium	0.00978	0.0050	0.01		98	70	130				
Silver	0.0188	0.0050	0.02		94	70	130				
Sodium	104	0.50	100		104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 60 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 10/01/11 02:41 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	5.00E-06	0.10				0	0				
Vanadium	0.0199	0.10	0.02		100	70	130				
Zinc	0.0104	0.010	0.01		104	70	130				

Associated samples: H11090405-001C; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-003C; H11090405-004B; H11090405-004C; H11090405-005B;
H11090405-005C; H11090405-006B; H11090405-006C; H11090405-007B; H11090405-007C; H11090405-008B

Run ID :Run Order: ICPMS204-B_110930B: 113 SampType: Sample Matrix Spike Sample ID: H11090405-002CMS Method: E200.8

Analysis Date: 10/01/11 06:39 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0481	0.10	0.05		96	70	130				
Antimony	0.0472	0.0050	0.05		94	70	130				
Arsenic	0.0492	0.0050	0.05		98	70	130				
Barium	0.0476	0.10	0.05		95	70	130				
Beryllium	0.0482	0.0010	0.05		96	70	130				
Cadmium	0.0476	0.0010	0.05		95	70	130				
Calcium	45.4	1.0	50		91	70	130				
Chromium	0.0481	0.010	0.05		96	70	130				
Cobalt	0.0477	0.010	0.05		95	70	130				
Copper	0.0476	0.010	0.05		95	70	130				
Iron	4.73	0.030	5	0.001149	95	70	130				
Lead	0.0483	0.010	0.05		97	70	130				
Magnesium	47.0	1.0	50		94	70	130				
Manganese	0.0479	0.010	0.05		96	70	130				
Nickel	0.0474	0.010	0.05		95	70	130				
Potassium	47.0	1.0	50		94	70	130				
Selenium	0.0502	0.0050	0.05		100	70	130				
Silver	0.0157	0.0050	0.02		79	70	130				
Sodium	48.4	1.0	50		97	70	130				
Thallium	0.0484	0.0050	0.05		97	70	130				
Vanadium	0.0485	0.10	0.05		97	70	130				
Zinc	0.0491	0.010	0.05	0.0006452	97	70	130				

Associated samples: H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B;
H11090405-008B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 118 SampType: Sample Matrix Spike Duplicate Sample ID: H11090405-002CMSD Method: E200.8

Analysis Date: 10/01/11 07:02 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0463	0.10	0.05		93	70	130	0.0481		20	
Antimony	0.0467	0.0050	0.05		93	70	130	0.04716	1.0	20	
Arsenic	0.0488	0.0050	0.05		98	70	130	0.04924	0.8	20	
Barium	0.0472	0.10	0.05		94	70	130	0.04761		20	
Beryllium	0.0467	0.0010	0.05		93	70	130	0.04818	3.1	20	
Cadmium	0.0464	0.0010	0.05		93	70	130	0.04756	2.4	20	
Calcium	45.9	1.0	50		92	70	130	45.43	1.1	20	
Chromium	0.0474	0.010	0.05		95	70	130	0.0481	1.4	20	
Cobalt	0.0465	0.010	0.05		93	70	130	0.04767	2.5	20	
Copper	0.0472	0.010	0.05		94	70	130	0.04765	0.9	20	
Iron	4.84	0.030	5	0.001149	97	70	130	4.733	2.2	20	
Lead	0.0478	0.010	0.05		96	70	130	0.04829	0.9	20	
Magnesium	46.9	1.0	50		94	70	130	46.97	0.1	20	
Manganese	0.0476	0.010	0.05		95	70	130	0.0479	0.6	20	
Nickel	0.0471	0.010	0.05		94	70	130	0.04743	0.7	20	
Potassium	45.9	1.0	50		92	70	130	46.97	2.3	20	
Selenium	0.0508	0.0050	0.05		102	70	130	0.0502	1.2	20	
Silver	0.0160	0.0050	0.02		80	70	130	0.01571	2.1	20	
Sodium	47.5	1.0	50		95	70	130	48.43	2.0	20	
Thallium	0.0482	0.0050	0.05		96	70	130	0.04835	0.4	20	
Vanadium	0.0479	0.10	0.05		96	70	130	0.04851		20	
Zinc	0.0488	0.010	0.05	0.0006452	96	70	130	0.04909	0.5	20	

Associated samples: H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B;
H11090405-008B

Run ID :Run Order: ICPMS204-B_110930B: 135 SampType: Sample Matrix Spike Sample ID: H11090405-008BMS Method: E200.8

Analysis Date: 10/01/11 08:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.391	0.10	0.05	0.2181		70	130				A
Antimony	0.0464	0.0050	0.05	0.0001695	93	70	130				
Arsenic	0.0488	0.0050	0.05	0.0007676	96	70	130				
Barium	0.420	0.10	0.05	0.3742		70	130				A
Beryllium	0.0459	0.0010	0.05	0.0000359	92	70	130				
Cadmium	0.0459	0.0010	0.05	0.0002058	91	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 135 SampType: Sample Matrix Spike Sample ID: H11090405-008BMS Method: E200.8

Analysis Date: 10/01/11 08:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	90.4	1.0	50	43.47	94	70	130				
Chromium	0.0506	0.010	0.05	0.00299	95	70	130				
Cobalt	0.0468	0.010	0.05	0.000945	92	70	130				
Copper	0.0470	0.010	0.05	0.0007134	93	70	130				
Iron	4.89	0.030	5	0.2775	92	70	130				
Lead	0.0481	0.010	0.05	0.0005708	95	70	130				
Magnesium	54.8	1.0	50	9.781	90	70	130				
Manganese	0.0906	0.010	0.05	0.04537	90	70	130				
Nickel	0.0472	0.010	0.05	0.0009168	93	70	130				
Potassium	48.7	1.0	50	2.963	92	70	130				
Selenium	0.0477	0.0050	0.05	0.0000634	95	70	130				
Silver	0.0158	0.0050	0.02		79	70	130				
Sodium	47.6	1.0	50	2.213	91	70	130				
Thallium	0.0474	0.0050	0.05	0.0000154	95	70	130				
Vanadium	0.0482	0.10	0.05	0.0007408	95	70	130				
Zinc	0.0509	0.010	0.05	0.004106	94	70	130				

Associated samples: H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B;
H11090405-008B

Run ID :Run Order: ICPMS204-B_110930B: 136 SampType: Sample Matrix Spike Duplicate Sample ID: H11090405-008BMSD Method: E200.8

Analysis Date: 10/01/11 08:23 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.401	0.10	0.05	0.2181		70	130	0.3914	2.4	20	A
Antimony	0.0442	0.0050	0.05	0.0001695	88	70	130	0.04644	5.0	20	
Arsenic	0.0474	0.0050	0.05	0.0007676	93	70	130	0.04879	2.8	20	
Barium	0.419	0.10	0.05	0.3742		70	130	0.4197	0.2	20	A
Beryllium	0.0436	0.0010	0.05	0.0000359	87	70	130	0.04588	5.1	20	
Cadmium	0.0431	0.0010	0.05	0.0002058	86	70	130	0.04588	6.2	20	
Calcium	88.2	1.0	50	43.47	90	70	130	90.44	2.5	20	
Chromium	0.0495	0.010	0.05	0.00299	93	70	130	0.05057	2.2	20	
Cobalt	0.0445	0.010	0.05	0.000945	87	70	130	0.0468	5.1	20	
Copper	0.0459	0.010	0.05	0.0007134	90	70	130	0.04699	2.4	20	
Iron	4.87	0.030	5	0.2775	92	70	130	4.89	0.4	20	
Lead	0.0457	0.010	0.05	0.0005708	90	70	130	0.04806	5.0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R74966

Run ID :Run Order: ICPMS204-B_110930B: 136 SampType: Sample Matrix Spike Duplicate Sample ID: H11090405-008BMSD Method: E200.8

Analysis Date: 10/01/11 08:23

Units: mg/L

Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	55.2	1.0	50	9.781	91	70	130	54.83	0.6	20	
Manganese	0.0868	0.010	0.05	0.04537	83	70	130	0.0906	4.3	20	
Nickel	0.0457	0.010	0.05	0.0009168	90	70	130	0.0472	3.3	20	
Potassium	47.4	1.0	50	2.963	89	70	130	48.72	2.7	20	
Selenium	0.0468	0.0050	0.05	0.0000634	93	70	130	0.04767	1.9	20	
Silver	0.0152	0.0050	0.02		76	70	130	0.01585	4.2	20	
Sodium	48.4	1.0	50	2.213	92	70	130	47.63	1.6	20	
Thallium	0.0454	0.0050	0.05	0.0000154	91	70	130	0.04737	4.2	20	
Vanadium	0.0469	0.10	0.05	0.0007408	92	70	130	0.04816		20	
Zinc	0.0501	0.010	0.05	0.004106	92	70	130	0.05086	1.4	20	

Associated samples: H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B;
H11090405-008B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75087

Run ID :Run Order: IC101-H_111005A: 15	SampType: Initial Calibration Verification Standard	Sample ID: ICV100511-12	Method: E300.0
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Analysis Date: 10/05/11 11:46	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		101	90	110				
Sulfate	400	1.0	400		100	90	110				

Associated samples: **H11090405-001A**

Run ID :Run Order: IC101-H_111005A: 16	SampType: Method Blank	Sample ID: ICB100511-13	Method: E300.0
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Analysis Date: 10/05/11 11:59	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.07									
Sulfate	ND	0.1									

Associated samples: **H11090405-001A**

Run ID :Run Order: IC101-H_111005A: 17	SampType: Laboratory Fortified Blank	Sample ID: LFB100511-14	Method: E300.0
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Analysis Date: 10/05/11 12:13	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47	1.0	50		95	90	110				
Sulfate	190	1.1	200		95	90	110				

Associated samples: **H11090405-001A**

Run ID :Run Order: IC101-H_111005A: 18	SampType: Continuing Calibration Verification Standard	Sample ID: CCV-100511-15	Method: E300.0
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Analysis Date: 10/05/11 12:26	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	99	1.0	100		99	90	110				
Sulfate	400	1.0	400		99	90	110				

Associated samples: **H11090405-001A**

Run ID :Run Order: IC101-H_111005A: 25	SampType: Sample Matrix Spike	Sample ID: H11090404-004AMS	Method: E300.0
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Analysis Date: 10/05/11 14:00	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47	1.0	50		94	90	110				
Sulfate	190	1.1	200	0.204	95	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75087

Run ID :Run Order: IC101-H_111005A: 25	SampType: Sample Matrix Spike	Sample ID: H11090404-004AMS	Method: E300.0
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Analysis Date: 10/05/11 14:00	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11090405-001A**

Run ID :Run Order: IC101-H_111005A: 26	SampType: Sample Matrix Spike Duplicate	Sample ID: H11090404-004AMSD	Method: E300.0
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Analysis Date: 10/05/11 14:13	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	48	1.0	50		95	90	110	47.1	0.9	20
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Sulfate	190	1.1	200	0.204	95	90	110	189.6	0.6	20
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Associated samples: **H11090405-001A**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75119

Run ID :Run Order: IC101-H_110906A: 15	SampType: Initial Calibration Verification Standard	Sample ID: ICV100611-12	Method: E300.0
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Analysis Date: 10/06/11 12:02	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		100	90	110				
Sulfate	400	1.0	400		100	90	110				

Associated samples: **H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: IC101-H_110906A: 16	SampType: Method Blank	Sample ID: ICB100611-13	Method: E300.0
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Analysis Date: 10/06/11 12:16	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.07									
Sulfate	ND	0.1									

Associated samples: **H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: IC101-H_110906A: 17	SampType: Laboratory Fortified Blank	Sample ID: LFB100611-14	Method: E300.0
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Analysis Date: 10/06/11 12:30	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	46	1.0	50		93	90	110				
Sulfate	190	1.1	200		95	90	110				

Associated samples: **H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: IC101-H_110906A: 18	SampType: Continuing Calibration Verification Standard	Sample ID: CCV-100611-15	Method: E300.0
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Analysis Date: 10/06/11 12:44	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	97	1.0	100		97	90	110				
Sulfate	390	1.0	400		98	90	110				

Associated samples: **H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: IC101-H_110906A: 25	SampType: Sample Matrix Spike	Sample ID: H11090405-006AMS	Method: E300.0
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Analysis Date: 10/06/11 14:21	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	46	1.0	50	0.203	91	90	110				
Sulfate	190	1.1	200	1.145	94	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75119

Run ID :Run Order: IC101-H_110906A: 25	SampType: Sample Matrix Spike	Sample ID: H11090405-006AMS	Method: E300.0
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Analysis Date: 10/06/11 14:21	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Run ID :Run Order: IC101-H_110906A: 26	SampType: Sample Matrix Spike Duplicate	Sample ID: H11090405-006AMSD	Method: E300.0
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Analysis Date: 10/06/11 14:35	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	44	1.0	50	0.203	88	90	110	45.52	2.6	20	S
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Sulfate	190	1.1	200	1.145	92	90	110	190	2.4	20	
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Associated samples: **H11090405-002A; H11090405-003A; H11090405-004A; H11090405-005A; H11090405-006A; H11090405-007A; H11090405-008A**

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75194

Run ID :Run Order: ICPMS204-B_111007A: 8 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 10/07/11 16:17 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.251	0.10	0.25		100	90	110				
Antimony	0.0499	0.050	0.05		100	90	110				
Arsenic	0.0505	0.0050	0.05		101	90	110				
Barium	0.0501	0.10	0.05		100	90	110				
Beryllium	0.0254	0.0010	0.025		101	90	110				
Cadmium	0.0266	0.0010	0.025		106	90	110				
Calcium	2.59	0.50	2.5		104	90	110				
Chromium	0.0516	0.010	0.05		103	90	110				
Cobalt	0.0512	0.010	0.05		102	90	110				
Copper	0.0525	0.010	0.05		105	90	110				
Iron	0.250	0.030	0.25		100	90	110				
Lead	0.0507	0.010	0.05		101	90	110				
Magnesium	2.52	0.50	2.5		101	90	110				
Manganese	0.259	0.010	0.25		104	90	110				
Mercury	0.00207	0.0010	0.002		103	90	110				
Nickel	0.0516	0.010	0.05		103	90	110				
Potassium	2.58	0.50	2.5		103	90	110				
Selenium	0.0510	0.0050	0.05		102	90	110				
Silver	0.0248	0.0050	0.025		99	90	110				
Sodium	2.61	0.50	2.5		104	90	110				
Thallium	0.0514	0.10	0.05		103	90	110				
Vanadium	0.0504	0.10	0.05		101	90	110				
Zinc	0.0530	0.010	0.05		106	90	110				

Associated samples: H11090405-001B; H11090405-001C; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-003C; H11090405-004B; H11090405-004C;
H11090405-005B; H11090405-006B; H11090405-007B; H11090405-008B; H11090405-008C

Run ID :Run Order: ICPMS204-B_111007A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 10/07/11 16:22 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.9	0.10	40		102	70	130				
Antimony	0.000340	0.050									
Arsenic	0.000127	0.0050									
Barium	0.000174	0.10									
Beryllium	3.00E-06	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75194

Run ID :Run Order: ICPMS204-B_111007A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 10/07/11 16:22 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000534	0.0010									
Calcium	110	0.50	120		92	70	130				
Chromium	0.00221	0.010									
Cobalt	0.00297	0.010									
Copper	0.000356	0.010									
Iron	98.6	0.030	100		99	70	130				
Lead	7.60E-05	0.010									
Magnesium	41.7	0.50	40		104	70	130				
Manganese	0.00212	0.010									
Mercury	4.80E-05	0.0010									
Nickel	0.00132	0.010									
Potassium	40.3	0.50	40		101	70	130				
Selenium	0.000136	0.0050									
Silver	6.60E-05	0.0050									
Sodium	105	0.50	100		105	70	130				
Thallium	3.00E-06	0.10									
Vanadium	0.000194	0.10									
Zinc	0.00100	0.010									

Associated samples: H11090405-001B; H11090405-001C; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-003C; H11090405-004B; H11090405-004C;
H11090405-005B; H11090405-006B; H11090405-007B; H11090405-008B; H11090405-008C

Run ID :Run Order: ICPMS204-B_111007A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 10/07/11 16:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.7	0.10	40		102	70	130				
Antimony	0.000281	0.050				0	0				
Arsenic	0.0105	0.0050	0.01		105	70	130				
Barium	0.000117	0.10				0	0				
Beryllium	8.00E-06	0.0010				0	0				
Cadmium	0.0102	0.0010	0.01		102	70	130				
Calcium	109	0.50	120		91	70	130				
Chromium	0.0222	0.010	0.02		111	70	130				
Cobalt	0.0238	0.010	0.02		119	70	130				
Copper	0.0199	0.010	0.02		100	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75194

Run ID :Run Order: ICPMS204-B_111007A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 10/07/11 16:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.2	0.030	100		99	70	130				
Lead	5.90E-05	0.010				0	0				
Magnesium	41.2	0.50	40		103	70	130				
Manganese	0.0222	0.010	0.02		111	70	130				
Mercury	1.20E-05	0.0010				0	0				
Nickel	0.0211	0.010	0.02		105	70	130				
Potassium	40.3	0.50	40		101	70	130				
Selenium	0.0102	0.0050	0.01		102	70	130				
Silver	0.0196	0.0050	0.02		98	70	130				
Sodium	104	0.50	100		104	70	130				
Thallium	6.00E-06	0.10				0	0				
Vanadium	0.0204	0.10	0.02		102	70	130				
Zinc	0.0106	0.010	0.01		106	70	130				

Associated samples: H11090405-001B; H11090405-001C; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-003C; H11090405-004B; H11090405-004C;
H11090405-005B; H11090405-006B; H11090405-007B; H11090405-008B; H11090405-008C

Run ID :Run Order: ICPMS204-B_111007A: 16 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 10/07/11 17:03 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	3E-05									
Cadmium	ND	1E-05									
Copper	ND	3E-05									
Iron	ND	0.0002									
Mercury	ND	9E-06									
Nickel	ND	5E-05									
Selenium	ND	4E-05									
Vanadium	ND	1E-05									
Zinc	0.0004	0.0003									

Associated samples: H11090405-001B; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B;
H11090405-007B; H11090405-008B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75194

Run ID :Run Order: ICPMS204-B_111007A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 10/07/11 17:08 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0508	0.0050	0.05		102	85	115				
Cadmium	0.0491	0.0010	0.05		98	85	115				
Copper	0.0502	0.010	0.05		100	85	115				
Iron	4.93	0.030	5		99	85	115				
Mercury	0.000998	0.0010	0.001		100	85	115				
Nickel	0.0499	0.010	0.05		100	85	115				
Selenium	0.0501	0.0050	0.05		100	85	115				
Vanadium	0.0509	0.10	0.05		102	85	115				
Zinc	0.0512	0.010	0.05	0.0004409	101	85	115				

Associated samples: H11090405-001B; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B;
H11090405-007B; H11090405-008B

Run ID :Run Order: ICPMS204-B_111007A: 32 SampType: Sample Matrix Spike Sample ID: H11090405-001BMS Method: E200.8

Analysis Date: 10/07/11 18:23 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0518	0.0050	0.05	0.000297	103	70	130				
Cadmium	0.0502	0.0010	0.05	0.000541	99	70	130				
Copper	0.0571	0.010	0.05	0.007569	99	70	130				
Iron	4.98	0.030	5	0.06983	98	70	130				
Mercury	0.00111	0.0010	0.001	0.0000417	107	70	130				
Nickel	0.0534	0.010	0.05	0.003742	99	70	130				
Selenium	0.0508	0.0050	0.05	0.0001112	101	70	130				
Vanadium	0.0512	0.10	0.05	0.0001454	102	70	130				
Zinc	0.0560	0.010	0.05	0.006167	100	70	130				

Associated samples: H11090405-001B; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B;
H11090405-007B; H11090405-008B

Run ID :Run Order: ICPMS204-B_111007A: 33 SampType: Sample Matrix Spike Duplicate Sample ID: H11090405-001BMSD Method: E200.8

Analysis Date: 10/07/11 18:28 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0508	0.0050	0.05	0.000297	101	70	130	0.05184	2.0	20	
Cadmium	0.0498	0.0010	0.05	0.000541	99	70	130	0.05025	0.9	20	
Copper	0.0572	0.010	0.05	0.007569	99	70	130	0.05712	0.1	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75194

Run ID :Run Order: ICPMS204-B_111007A: 33 SampType: Sample Matrix Spike Duplicate Sample ID: H11090405-001BMSD Method: E200.8

Analysis Date: 10/07/11 18:28 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.00	0.030	5	0.06983	99	70	130	4.98	0.4	20	
Mercury	0.00110	0.0010	0.001	0.0000417	106	70	130	0.00111	1.2	20	
Nickel	0.0529	0.010	0.05	0.003742	98	70	130	0.05345	1.0	20	
Selenium	0.0505	0.0050	0.05	0.0001112	101	70	130	0.05077	0.5	20	
Vanadium	0.0512	0.10	0.05	0.0001454	102	70	130	0.0512		20	
Zinc	0.0565	0.010	0.05	0.006167	101	70	130	0.05602	0.9	20	

Associated samples: H11090405-001B; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B; H11090405-008B

Run ID :Run Order: ICPMS204-B_111007A: 80 SampType: Sample Matrix Spike Sample ID: H11090406-003BMSD Method: E200.8

Analysis Date: 10/07/11 22:12 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0671	0.0050	0.05	0.01647	101	70	130				
Cadmium	0.0469	0.0010	0.05	0.0000177	94	70	130				
Copper	0.0497	0.010	0.05	0.0008788	98	70	130				
Iron	4.89	0.030	5	0.03199	97	70	130				
Mercury	0.00106	0.0010	0.001	0.0001347	93	70	130				
Nickel	0.0492	0.010	0.05	0.0001555	98	70	130				
Selenium	0.0560	0.0050	0.05	0.006386	99	70	130				
Vanadium	0.0598	0.10	0.05	0.009527	101	70	130				
Zinc	0.0587	0.010	0.05	0.01002	97	70	130				

Associated samples: H11090405-001B; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B; H11090405-007B; H11090405-008B

Run ID :Run Order: ICPMS204-B_111007A: 81 SampType: Sample Matrix Spike Duplicate Sample ID: H11090406-003BMSD Method: E200.8

Analysis Date: 10/07/11 22:16 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0664	0.0050	0.05	0.01647	100	70	130	0.06707	1.0	20	
Cadmium	0.0468	0.0010	0.05	0.0000177	94	70	130	0.04691	0.3	20	
Copper	0.0497	0.010	0.05	0.0008788	98	70	130	0.04974	0.1	20	
Iron	4.89	0.030	5	0.03199	97	70	130	4.891	0.1	20	
Mercury	0.00107	0.0010	0.001	0.0001347	94	70	130	0.00106	1.0	20	
Nickel	0.0490	0.010	0.05	0.0001555	98	70	130	0.04919	0.4	20	

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75194

Run ID :Run Order: ICPMS204-B_111007A: 81 SampType: Sample Matrix Spike Duplicate Sample ID: H11090406-003BMSD Method: E200.8

Analysis Date: 10/07/11 22:16 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium		0.0559	0.0050	0.05	0.006386	99	70	130	0.05604	0.2	20	
Vanadium		0.0597	0.10	0.05	0.009527	100	70	130	0.05981		20	
Zinc		0.0569	0.010	0.05	0.01002	94	70	130	0.05868	3.0	20	

Associated samples: H11090405-001B; H11090405-002B; H11090405-002C; H11090405-003B; H11090405-004B; H11090405-004C; H11090405-005B; H11090405-006B;
H11090405-007B; H11090405-008B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 62 of 68

Client: MT DEQ-Site Response
Work Order: H11090405

ANALYTICAL QC SUMMARY REPORT

Date: 19-Oct-11

Project: Section 35 Groundwater Baseline

BatchID: R75212

Run ID :Run Order: ICPMS204-B_111010A: 113	SampType: Initial Calibration Verification Standard	Sample ID: ICV STD	Method: E200.8
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Analysis Date: 10/10/11 18:29	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Aluminum	0.248	0.10	0.25		99	90	110				
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Associated samples: **H11090405-001C**

Run ID :Run Order: ICPMS204-B_111010A: 114	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 10/10/11 18:33	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Aluminum	38.0	0.10	40		95	70	130				
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Associated samples: **H11090405-001C**

Run ID :Run Order: ICPMS204-B_111010A: 115	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 10/10/11 18:38	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Aluminum	38.3	0.10	40		96	70	130				
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Associated samples: **H11090405-001C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11090405

Login completed by: Wanda Johnson

Date Received: 9/23/2011

Reviewed by: BL2000\wjohanson

Received by: elm

Reviewed Date: 10/12/2011

Carrier Hand Del
name:

Shipping container/coolier in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/coolier?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	6.0°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None

PLEASE PRINT (Provide as much information as possible.)

Company Name:
MDEQ

Report Mail Address:
Quoted: H-LA5

Invoice Address:

Project Name, PWS, Permit, Etc.
Section 35 Groundwater (Baseline)

Contact Name: **Shellie Haaland**
Phone/Fax: **341-5033** Email: **Shaland@mt.gov**

Invoice Contact & Phone:

Purchase Order: **10000**
Quote/Bottle Order:

Special Report/Formats:

- DW EDD/EDT (Electronic Data)
 POTW/WWTP Format: _____
 State: _____ LEVEL IV
 Other: _____ NELAC

Number of Containers: **1**
Sample Type: **A W S V B O DW**
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

Standard Turnaround (TAT)

R U S H Contact EU prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Comments: Please copy results to: **adresbach@PortageInc.com**

Receipt Temp: **60.0** °C

On Ice: **0** °N

Custody Seal On Bottle **Y** **N**

On Cooler **Y** **N**

Intact Signature **Y** **N**

Signature Match **Y** **N**

SEE ATTACHED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1 S35MN02	09/21/2011	1205	W
2 S35MN03	09/21/2011	1220	W
3 S35MN04	09/21/2011	1255	W
4 S35MN01	09/21/2011	1420	W
5 S35MN03	09/21/2011	1615	W
6 S35MN04	09/21/2011	1735	W
7 S35MN04	09/21/2011	1815	W
8 S35MN07	09/21/2011	1825	W
9			
10			

Date/Time: **9/23/11 11:35 AM**

Signature: **Jay Verkler**

Reinstituted by (print): **Jay Verkler**

Date/Time: **9/23/11 11:35 AM**

Signature: **Jay Verkler**

Sample Disposal: **Return to Client**

Lab Disposal: **None**

Received by (print): **Jay Verkler**

Date/Time: **9/21/11 4:00 PM**

Signature: **Jay Verkler**

Received by (print): **Jay Verkler**

Date/Time: **9/21/11 4:00 PM**

Signature: **Jay Verkler**

Received by (print): **Jay Verkler**

Date/Time: **9/21/11 4:00 PM**

Signature: **Jay Verkler**

Received by (print): **Jay Verkler**

Date/Time: **9/21/11 4:00 PM**

Signature: **Jay Verkler**

Received by (print): **Jay Verkler**

Date/Time: **9/21/11 4:00 PM**

Signature: **Jay Verkler**

LABORATORY USE ONLY

Custody Record	Reinstituted by Laboratory: Jay Verkler
MUST be Signed	Reinstituted by (print): Jay Verkler
Sample Disposal: Return to Client	Lab Disposal: None

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Quotation for Analytical Services # H645

Company: MT DEQ-Site Response Submitted By:
 Contact: Shellie Haaland Project: UBMC
 Address: PO Box 200901 TAT: 10 Working days
 Helena, MT 59620-0901 QC Level: STD
 Phone: (406) 841-5033 Fax: Quote Date: 30-Apr-11 Expires: 31-Dec-12

Matrix	Test Name	Test	Remarks	# Samp	Unit Price	Test Total
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Schedule: UBMC Surface Water Section 35 Baseline

Schedule Sample Price: \$425.00

Schedule Total: \$425.00

Aqueous	Schedule: UBMC Ground Water Section 35 Baseline					
	Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1
	✓Alkalinity	A2320 B		1	\$10.00	1
	Hardness as CaCO ₃	A2340 B		1	\$0.00	1
	✓Conductivity	A2510 B		1	\$10.00	1
	✓Solids, Total Dissolved	A2540 C		1	\$15.00	1
	✓Solids, Total Suspended	A2540 D		1	\$15.00	1
	✓pH	A4500-H B		1	\$10.00	1
	Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$200.00	1
	Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$200.00	1
	Mercury, Total	E245.7	Only used if can not be achieved by other methods.	1	\$50.00	1
	✓ Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1
				Schedule Sample Price:	\$560.00	
				Schedule Total:	\$560.00	

Schedule:	Sediment					
	Metals by ICP/ICPMS, Total	E6010.20		1	\$80.00	1
	Digestion, Total Metals	SW3050 B		1	\$25.00	1

Schedule Sample Price: \$105.00

Schedule Total: \$105.00

Quote Comments:	Shipping Labels provided at 12.00 a cooler by UPS or FED EX.	Quote Sub Total:	\$1,680.00
		Misc:	\$0.00
		Discount:	30.00%
		WO Adjustment:	\$0.00

QUOTE TOTAL: \$1,176.00

General Comments: Price per sampling event. Sampling to be completed by Portage Inc. 1065 N Ewing Helena, MT 406-457-0056

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents .

* Methods and/or parameters included in the indicated test group.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<u>UBMC Ground Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.05	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L



Analyte Limits For Quote #: H-645

Schedule Name <i>TestName</i>	Analyte	Report Limit	Units
Metals by ICP/ICPMS, Tot. Rec.	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
pH	Zinc	0.01	mg/L
	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

December 27, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11120150 Quote ID: H645 - UBMC

Project Name: UBMC Surface Water Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 7 samples for MT DEQ-Site Response on 12/12/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11120150-001	S35SW05	12/10/11 9:45	12/12/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120150-002	S35SW01	12/10/11 11:25	12/12/11	Surface Water	Same As Above
H11120150-003	S35SW06	12/10/11 11:30	12/12/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Prep for low level 245.7 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120150-004	S35SW02	12/10/11 12:20	12/12/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120150-005	S35SW04	12/10/11 13:45	12/12/11	Surface Water	Same As Above
H11120150-006	S35SW03	12/10/11 15:00	12/12/11	Surface Water	Same As Above
H11120150-007	TB HG2004 HCL EM 12/7/11	12/10/11 9:45	12/12/11	Trip Blank	Mercury, Total Prep for low level 245.7

ANALYTICAL SUMMARY REPORT

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: UBMC Surface Water Section 35 Baseline
Sample Delivery Group: H11120150

Report Date: 12/27/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11120150-001
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 09:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 33		R76690
Conductivity	179	umhos/cm		1		A2510 B	12/12/11 11:40 / zeg		COND_111212A : 3111212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:33 / cmm	12/12/11 14:34-124 (14410200)_111212A : 13			15073
Solids, Total Dissolved TDS @ 180 C	128	mg/L		10		A2540 C	12/12/11 15:03 / cmm	12/12/11 14:42-124 (14410200)_111212B : 15			15075
INORGANICS											
Alkalinity, Total as CaCO ₃	93	mg/L		4		A2320 B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 32		R76690
Bicarbonate as HCO ₃	110	mg/L		4		A2320 B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 32		R76690
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 32		R76690
Chloride	ND	mg/L		1		E300.0	12/12/11 22:08 / zeg		IC102-H_111212A : 50		R76698
Sulfate	5	mg/L		1		E300.0	12/12/11 22:08 / zeg		IC102-H_111212A : 50		R76698
Hardness as CaCO ₃	87	mg/L		1		A2340 B	12/14/11 16:15 / sld		WATERCALC_111214A : 10		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:00 / sld		ICP2-HE_111213A : 29		R76725
Calcium	20	mg/L		1		E200.7	12/13/11 13:00 / sld		ICP2-HE_111213A : 29		R76725
Magnesium	9	mg/L		1		E200.7	12/13/11 13:00 / sld		ICP2-HE_111213A : 29		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:00 / sld		ICP2-HE_111213A : 29		R76725
Sodium	2	mg/L		1		E200.7	12/13/11 13:00 / sld		ICP2-HE_111213A : 29		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Barium	0.132	mg/L		0.005		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Cadmium	ND	mg/L		0.00008		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Calcium	21	mg/L		1		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Copper	0.001	mg/L		0.001		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Iron	0.04	mg/L		0.03		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11120150-001
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 09:45 **DateReceived:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Magnesium	10	mg/L		1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Manganese	ND	mg/L		0.005	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Mercury	ND	mg/L		0.00001	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Nickel	ND	mg/L		0.01	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Potassium	ND	mg/L		1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Selenium	ND	mg/L		0.001	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Silver	ND	mg/L		0.0005	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Sodium	2	mg/L		1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Thallium	ND	mg/L		0.0002	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Vanadium	ND	mg/L		0.1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Zinc	ND	mg/L		0.01	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786

Report Definitions: RL - Analyte reporting limit.
MCL: Maximum contaminant level.
ND: Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11120150-002
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:25 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 35		R76690
Conductivity	195	umhos/cm		1		A2510 B	12/12/11 11:41 / zeg		COND_111212A : 3211212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:33 / cmm	12/12/11 14:34-124 (14410200)	_111212A : 14		15073
Solids, Total Dissolved TDS @ 180 C	136	mg/L		10		A2540 C	12/12/11 15:06 / cmm	12/12/11 14:42-124 (14410200)	_111212B : 16		15075
INORGANICS											
Alkalinity, Total as CaCO ₃	110	mg/L		4		A2320 B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 34		R76690
Bicarbonate as HCO ₃	130	mg/L		4		A2320 B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 34		R76690
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 34		R76690
Chloride	ND	mg/L		1		E300.0	12/12/11 22:22 / zeg		IC102-H_111212A : 51		R76698
Sulfate	1	mg/L		1		E300.0	12/12/11 22:22 / zeg		IC102-H_111212A : 51		R76698
Hardness as CaCO ₃	95	mg/L		1		A2340 B	12/14/11 16:15 / sld		WATERCALC_111214A : 11		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:03 / sld		ICP2-HE_111213A : 30		R76725
Calcium	25	mg/L		1		E200.7	12/13/11 13:03 / sld		ICP2-HE_111213A : 30		R76725
Magnesium	8	mg/L		1		E200.7	12/13/11 13:03 / sld		ICP2-HE_111213A : 30		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:03 / sld		ICP2-HE_111213A : 30		R76725
Sodium	2	mg/L		1		E200.7	12/13/11 13:03 / sld		ICP2-HE_111213A : 30		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Barium	0.176	mg/L		0.005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Cadmium	ND	mg/L		0.00008		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Calcium	26	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Copper	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Iron	0.06	mg/L		0.03		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11120150-002
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:25 **DateReceived:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Magnesium	9	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Manganese	ND	mg/L		0.005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Nickel	ND	mg/L		0.01		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Sodium	2	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Zinc	ND	mg/L		0.01		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11120150-003
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:30 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/12/11 19:06 / cmm		MAN-TECH_111212B : 37		R76690
Conductivity	194	umhos/cm		1		A2510 B	12/12/11 11:42 / zeg		COND_111212A : 3311212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:33 / cmm	12/12/11 14:34-124 (14410200)_111212A : 15			15073
Solids, Total Dissolved TDS @ 180 C	132	mg/L		10		A2540 C	12/12/11 15:06 / cmm	12/12/11 14:42-124 (14410200)_111212B : 17			15075
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	12/12/11 19:06 / cmm		MAN-TECH_111212B : 36		R76690
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/12/11 19:06 / cmm		MAN-TECH_111212B : 36		R76690
Carbonate as CO3	ND	mg/L		4		A2320 B	12/12/11 19:06 / cmm		MAN-TECH_111212B : 36		R76690
Chloride	ND	mg/L		1		E300.0	12/12/11 22:35 / zeg		IC102-H_111212A : 52		R76698
Sulfate	1	mg/L		1		E300.0	12/12/11 22:35 / zeg		IC102-H_111212A : 52		R76698
Hardness as CaCO3	97	mg/L		1		A2340 B	12/14/11 16:15 / sld		WATERCALC_111214A : 12		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:25 / sld		ICP2-HE_111213A : 36		R76725
Calcium	26	mg/L		1		E200.7	12/13/11 13:25 / sld		ICP2-HE_111213A : 36		R76725
Magnesium	8	mg/L		1		E200.7	12/13/11 13:25 / sld		ICP2-HE_111213A : 36		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:25 / sld		ICP2-HE_111213A : 36		R76725
Sodium	2	mg/L		1		E200.7	12/13/11 13:25 / sld		ICP2-HE_111213A : 36		R76725
METALS, TOTAL											
Mercury	ND	ng/L		10.0		E245.7	12/19/11 14:29 / eli-c	12/19/11 11:42	SUB-C154551 : 13		C_32236
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Antimony	ND	mg/L		0.003		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Barium	0.182	mg/L		0.005		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Cadmium	ND	mg/L		0.00008		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Calcium	26	mg/L		1		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Chromium	ND	mg/L		0.001		E200.8	12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11120150-003
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:30 **DateReceived:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Copper	0.004	mg/L		0.001	E200.8		12/20/11 16:54 / dck	12/13/11 11:08	ICPMS204-B_111220A : 92		15103
Iron	0.07	mg/L		0.03	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Lead	ND	mg/L		0.0005	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Magnesium	9	mg/L		1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Manganese	ND	mg/L		0.005	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Nickel	ND	mg/L		0.01	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Potassium	ND	mg/L		1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Selenium	ND	mg/L		0.001	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Silver	ND	mg/L		0.0005	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Sodium	2	mg/L		1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Thallium	ND	mg/L		0.0002	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Vanadium	ND	mg/L		0.1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Zinc	ND	mg/L		0.01	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11120150-004
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 12:20 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	12/12/11 19:22 / cmm		MAN-TECH_111212B : 41		R76690
Conductivity	134	umhos/cm		1		A2510 B	12/12/11 11:42 / zeg		COND_111212A : 3411212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:34 / cmm	12/12/11 14:34-124 (14410200)_111212A : 16			15073
Solids, Total Dissolved TDS @ 180 C	94	mg/L		10		A2540 C	12/12/11 15:07 / cmm	12/12/11 14:42-124 (14410200)_111212B : 18			15075
INORGANICS											
Alkalinity, Total as CaCO ₃	71	mg/L		4		A2320 B	12/12/11 19:22 / cmm		MAN-TECH_111212B : 40		R76690
Bicarbonate as HCO ₃	86	mg/L		4		A2320 B	12/12/11 19:22 / cmm		MAN-TECH_111212B : 40		R76690
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/12/11 19:22 / cmm		MAN-TECH_111212B : 40		R76690
Chloride	ND	mg/L		1		E300.0	12/12/11 23:16 / zeg		IC102-H_111212A : 55		R76698
Sulfate	2	mg/L		1		E300.0	12/12/11 23:16 / zeg		IC102-H_111212A : 55		R76698
Hardness as CaCO ₃	63	mg/L		1		A2340 B	12/14/11 16:15 / sld		WATERCALC_111214A : 13		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:29 / sld		ICP2-HE_111213A : 37		R76725
Calcium	16	mg/L		1		E200.7	12/13/11 13:29 / sld		ICP2-HE_111213A : 37		R76725
Magnesium	6	mg/L		1		E200.7	12/13/11 13:29 / sld		ICP2-HE_111213A : 37		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:29 / sld		ICP2-HE_111213A : 37		R76725
Sodium	2	mg/L		1		E200.7	12/13/11 13:29 / sld		ICP2-HE_111213A : 37		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Barium	0.105	mg/L		0.005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Cadmium	ND	mg/L		0.00008		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Calcium	16	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Copper	0.001	mg/L		0.001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Iron	0.07	mg/L		0.03		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11120150-004
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 12:20 **DateReceived:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Magnesium	7	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Manganese	0.009	mg/L		0.005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Nickel	ND	mg/L		0.01		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Sodium	2	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Zinc	ND	mg/L		0.01		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786

Report Definitions: RL - Analyte reporting limit.
MCL: Maximum contaminant level.
ND: Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11120150-005
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 13:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	12/12/11 19:29 / cmm		MAN-TECH_111212B : 43		R76690
Conductivity	224	umhos/cm		1		A2510 B	12/12/11 11:44 / zeg		COND_111212A : 3611212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:34 / cmm	12/12/11 14:34-124 (14410200)_111212A : 17			15073
Solids, Total Dissolved TDS @ 180 C	154	mg/L		10		A2540 C	12/12/11 15:07 / cmm	12/12/11 14:42-124 (14410200)_111212B : 20			15075
INORGANICS											
Alkalinity, Total as CaCO ₃	75	mg/L		4		A2320 B	12/12/11 19:29 / cmm		MAN-TECH_111212B : 42		R76690
Bicarbonate as HCO ₃	92	mg/L		4		A2320 B	12/12/11 19:29 / cmm		MAN-TECH_111212B : 42		R76690
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/12/11 19:29 / cmm		MAN-TECH_111212B : 42		R76690
Chloride	2	mg/L		1		E300.0	12/12/11 23:30 / zeg		IC102-H_111212A : 56		R76698
Sulfate	34	mg/L		1		E300.0	12/12/11 23:30 / zeg		IC102-H_111212A : 56		R76698
Hardness as CaCO ₃	105	mg/L		1		A2340 B	12/14/11 16:15 / sld		WATERCALC_111214A : 14		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:33 / sld		ICP2-HE_111213A : 38		R76725
Calcium	24	mg/L		1		E200.7	12/13/11 13:33 / sld		ICP2-HE_111213A : 38		R76725
Magnesium	11	mg/L		1		E200.7	12/13/11 13:33 / sld		ICP2-HE_111213A : 38		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:33 / sld		ICP2-HE_111213A : 38		R76725
Sodium	3	mg/L		1		E200.7	12/13/11 13:33 / sld		ICP2-HE_111213A : 38		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Barium	0.169	mg/L		0.005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Cadmium	0.00018	mg/L		0.00008		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Calcium	25	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Copper	ND	mg/L		0.001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Iron	0.06	mg/L		0.03		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW04

Lab ID: H11120150-005

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 12/10/11 13:45 **DateReceived:** 12/12/11

Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Magnesium	12	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Manganese	0.010	mg/L		0.005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Nickel	ND	mg/L		0.01		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Sodium	3	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Zinc	0.14	mg/L		0.01		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11120150-006
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 15:00 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.		0.1		A4500-H B	12/12/11 19:36 / cmm		MAN-TECH_111212B : 45		R76690
Conductivity	227	umhos/cm		1		A2510 B	12/12/11 11:45 / zeg		COND_111212A : 3711212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:34 / cmm	12/12/11 14:34-124 (14410200)_111212A : 18			15073
Solids, Total Dissolved TDS @ 180 C	142	mg/L		10		A2540 C	12/12/11 15:07 / cmm	12/12/11 14:42-124 (14410200)_111212B : 21			15075
INORGANICS											
Alkalinity, Total as CaCO ₃	76	mg/L		4		A2320 B	12/12/11 19:36 / cmm		MAN-TECH_111212B : 44		R76690
Bicarbonate as HCO ₃	92	mg/L		4		A2320 B	12/12/11 19:36 / cmm		MAN-TECH_111212B : 44		R76690
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/12/11 19:36 / cmm		MAN-TECH_111212B : 44		R76690
Chloride	2	mg/L		1		E300.0	12/12/11 23:43 / zeg		IC102-H_111212A : 57		R76698
Sulfate	34	mg/L		1		E300.0	12/12/11 23:43 / zeg		IC102-H_111212A : 57		R76698
Hardness as CaCO ₃	106	mg/L		1		A2340 B	12/14/11 16:15 / sld		WATERCALC_111214A : 15		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:36 / sld		ICP2-HE_111213A : 39		R76725
Calcium	24	mg/L		1		E200.7	12/13/11 13:36 / sld		ICP2-HE_111213A : 39		R76725
Magnesium	11	mg/L		1		E200.7	12/13/11 13:36 / sld		ICP2-HE_111213A : 39		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:36 / sld		ICP2-HE_111213A : 39		R76725
Sodium	3	mg/L		1		E200.7	12/13/11 13:36 / sld		ICP2-HE_111213A : 39		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Barium	0.171	mg/L		0.005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Cadmium	0.00019	mg/L		0.00008		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Calcium	24	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Copper	ND	mg/L		0.001		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Iron	0.06	mg/L		0.03		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11120150-006
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 15:00 **DateReceived:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Magnesium	12	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Manganese	0.013	mg/L		0.005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 17:01 / dck		ICPMS204-B_111220A : 93		R76896
Nickel	ND	mg/L		0.01		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Sodium	3	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Zinc	0.15	mg/L		0.01		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786

Report Definitions: RL - Analyte reporting limit.
MCL: Maximum contaminant level.
ND: Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: TB HG2004 HCL EM 12/7/11
Lab ID: H11120150-007
Matrix: Trip Blank

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 09:45 **DateReceived:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL											
Mercury	ND	ng/L		10.0		E245.7	12/19/11 14:44 / eli-c	12/19/11 11:42	SUB-C154551 : 17		C_32236

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 111212A-COND-PROBE

Run ID :Run Order: COND_111212A: 7		SampType: Initial Calibration Verification Standard			Sample ID: ICV1_111212A			Method: A2510 B		
Analysis Date:	12/12/11 09:18	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	1010	1.0	1000		101	90	110			
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: COND_111212A: 30		SampType: Continuing Calibration Verification Standard			Sample ID: CCV6_111212A			Method: A2510 B		
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Analysis Date:	12/12/11 11:39	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	1420	1.0	1412		101	90	110			
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: COND_111212A: 35		SampType: Sample Duplicate			Sample ID: H11120150-004ADUP			Method: A2510 B		
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Analysis Date:	12/12/11 11:43	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	133	1.0					133.6	0.5	10	
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: COND_111212A: 45		SampType: Sample Duplicate			Sample ID: H11120156-007ADUP			Method: A2510 B		
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Analysis Date:	12/12/11 14:25	Units:	umhos/cm		Prep Info:	Prep Date:			Prep Method:	
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD

Conductivity	174	1.0					175.8	1.0	10	
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 15073

Run ID :Run Order: ACCU-124 (14410200)_111212A: 1	SampType: Method Blank	Sample ID: MB-15073	Method: A2540 D
Analysis Date: 12/12/11 15:30	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	ND	3	

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212A: 2	SampType: Laboratory Control Sample	Sample ID: LCS-15073	Method: A2540 D
Analysis Date: 12/12/11 15:31	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	1690	10	2000 85 70 130

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212A: 11	SampType: Sample Duplicate	Sample ID: H11120149-008ADUP	Method: A2540 D
Analysis Date: 12/12/11 15:33	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	ND	10	5

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212A: 22	SampType: Sample Duplicate	Sample ID: H11120156-008ADUP	Method: A2540 D
Analysis Date: 12/12/11 15:37	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	4.00	10	5

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline

BatchID: 15075

Date: 30-Dec-11

Run ID :Run Order: ACCU-124 (14410200)_111212B: 1	SampType: Method Blank	Sample ID: MB-15075	Method: A2540 C
Analysis Date: 12/12/11 14:59	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	4	3	

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212B: 2	SampType: Laboratory Control Sample	Sample ID: LCS-15075	Method: A2540 C
Analysis Date: 12/12/11 15:00	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2130	10	2000 4 106 90 110

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212B: 13	SampType: Sample Duplicate	Sample ID: H11120149-008ADUP	Method: A2540 C
Analysis Date: 12/12/11 15:03	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	282	10	278 1.4 5

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212B: 19	SampType: Sample Matrix Spike	Sample ID: H11120150-004AMS	Method: A2540 C
Analysis Date: 12/12/11 15:07	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2190	10	2000 94 105 80 120

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: ACCU-124 (14410200)_111212B: 26	SampType: Sample Duplicate	Sample ID: H11120156-004ADUP	Method: A2540 C
Analysis Date: 12/12/11 15:08	Units: mg/L	Prep Info: Prep Date: 12/12/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	218	10	218 5

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 15103

Run ID :Run Order: ICPMS204-B_111214A: 70		SampType: Method Blank			Sample ID: MB-15103			Method: E200.8				
Analysis Date: 12/14/11 19:07		Units: mg/L			Prep Info: Prep Date: 12/13/2011			Prep Method: E200.2				
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.002		0.0007								
Antimony		ND		4E-05								
Arsenic		ND		5E-05								
Barium		ND		9E-05								
Beryllium		ND		2E-05								
Cadmium		ND		2E-05								
Calcium		ND		0.04								
Chromium		ND		6E-05								
Cobalt		ND		3E-05								
Copper		0.001		0.0004								
Iron		0.001		0.0006								
Lead		ND		2E-05								
Magnesium		ND		0.003								
Manganese		0.0001		6E-05								
Nickel		ND		0.0002								
Potassium		ND		0.07								
Selenium		ND		0.0002								
Silver		ND		6E-05								
Sodium		0.07		0.04								
Thallium		ND		2E-05								
Vanadium		0.0002		5E-05								
Zinc		0.001		0.0003								

Associated samples: H11120150-003C

Run ID :Run Order: ICPMS204-B_111214A: 71		SampType: Laboratory Control Sample			Sample ID: LCS-15103			Method: E200.8				
Analysis Date: 12/14/11 19:14		Units: mg/L			Prep Info: Prep Date: 12/13/2011			Prep Method: E200.2				
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		2.43	0.10	2.5	0.001619	97	85	115				
Antimony		0.526	0.0050	0.5		105	85	115				
Arsenic		0.489	0.0050	0.5		98	85	115				
Barium		0.499	0.10	0.5		100	85	115				
Beryllium		0.251	0.0010	0.25		101	85	115				
Cadmium		0.256	0.0010	0.25		103	85	115				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 15103

Run ID :Run Order: ICPMS204-B_111214A: 71 SampType: Laboratory Control Sample Sample ID: LCS-15103 Method: E200.8

Analysis Date: 12/14/11 19:14 Units: mg/L Prep Info: Prep Date: 12/13/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	25.1	1.0	25		101	85	115				
Chromium	0.492	0.010	0.5		98	85	115				
Cobalt	0.507	0.010	0.5		101	85	115				
Copper	0.488	0.010	0.5	0.001311	97	85	115				
Iron	2.50	0.030	2.5	0.001071	100	85	115				
Lead	0.509	0.010	0.5		102	85	115				
Magnesium	24.7	1.0	25		99	85	115				
Manganese	2.47	0.010	2.5	0.0001392	99	85	115				
Nickel	0.489	0.010	0.5		98	85	115				
Potassium	24.8	1.0	25		99	85	115				
Selenium	0.504	0.0050	0.5		101	85	115				
Silver	0.0492	0.0050	0.05		98	85	115				
Sodium	24.5	1.0	25	0.07269	98	85	115				
Thallium	0.508	0.0050	0.5		102	85	115				
Vanadium	0.494	0.10	0.5	0.0002008	99	85	115				
Zinc	0.497	0.010	0.5	0.00122	99	85	115				

Associated samples: H11120150-003C

Run ID :Run Order: ICPMS204-B_111214A: 79 SampType: Sample Matrix Spike Sample ID: H11120149-006CMS3 Method: E200.8

Analysis Date: 12/14/11 20:06 Units: mg/L Prep Info: Prep Date: 12/13/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.57	0.10	2.5	0.05808	101	70	130				
Antimony	0.535	0.0050	0.5	0.0001212	107	70	130				
Arsenic	0.498	0.0050	0.5	0.001231	99	70	130				
Barium	0.649	0.10	0.5	0.1528	99	70	130				
Beryllium	0.254	0.0010	0.25		102	70	130				
Cadmium	0.258	0.0010	0.25	0.0007971	103	70	130				
Calcium	60.5	1.0	25	34.9	103	70	130				
Chromium	0.499	0.010	0.5	0.000199	100	70	130				
Cobalt	0.512	0.010	0.5	0.0002257	102	70	130				
Copper	0.493	0.010	0.5	0.007304	97	70	130				
Iron	2.81	0.030	2.5	0.3058	100	70	130				
Lead	0.531	0.010	0.5	0.01148	104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 15103

Run ID :Run Order: ICPMS204-B_111214A: 79 SampType: Sample Matrix Spike Sample ID: H11120149-006CMS3 Method: E200.8

Analysis Date: 12/14/11 20:06 Units: mg/L Prep Info: Prep Date: 12/13/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	42.6	1.0	25	18.67	96	70	130				
Manganese	2.81	0.010	2.5	0.3033	100	70	130				
Nickel	0.490	0.010	0.5	0.001696	98	70	130				
Potassium	26.0	1.0	25	0.7414	101	70	130				
Selenium	0.495	0.0050	0.5		99	70	130				
Silver	0.0495	0.0050	0.05		99	70	130				
Sodium	26.0	1.0	25	1.629	98	70	130				
Thallium	0.515	0.0050	0.5		103	70	130				
Vanadium	0.500	0.10	0.5	0.0005112	100	70	130				
Zinc	0.981	0.010	0.5	0.4947	97	70	130				

Associated samples: H11120150-003C

Run ID :Run Order: ICPMS204-B_111214A: 80 SampType: Sample Matrix Spike Duplicate Sample ID: H11120149-006CMS3 Method: E200.8

Analysis Date: 12/14/11 20:12 Units: mg/L Prep Info: Prep Date: 12/13/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.57	0.10	2.5	0.05808	100	70	130	2.573	0.2	20	
Antimony	0.537	0.0050	0.5	0.0001212	107	70	130	0.5349	0.4	20	
Arsenic	0.498	0.0050	0.5	0.001231	99	70	130	0.4984	0.2	20	
Barium	0.658	0.10	0.5	0.1528	101	70	130	0.6493	1.4	20	
Beryllium	0.253	0.0010	0.25		101	70	130	0.2543	0.6	20	
Cadmium	0.259	0.0010	0.25	0.0007971	103	70	130	0.2585	0.1	20	
Calcium	60.2	1.0	25	34.9	101	70	130	60.54	0.5	20	
Chromium	0.496	0.010	0.5	0.000199	99	70	130	0.4994	0.7	20	
Cobalt	0.516	0.010	0.5	0.0002257	103	70	130	0.5118	0.9	20	
Copper	0.494	0.010	0.5	0.007304	97	70	130	0.4926	0.4	20	
Iron	2.84	0.030	2.5	0.3058	101	70	130	2.806	1.3	20	
Lead	0.526	0.010	0.5	0.01148	103	70	130	0.5308	0.9	20	
Magnesium	42.9	1.0	25	18.67	97	70	130	42.58	0.7	20	
Manganese	2.84	0.010	2.5	0.3033	102	70	130	2.81	1.2	20	
Nickel	0.489	0.010	0.5	0.001696	98	70	130	0.4901	0.1	20	
Potassium	25.8	1.0	25	0.7414	100	70	130	26.02	0.7	20	
Selenium	0.497	0.0050	0.5		99	70	130	0.4949	0.4	20	
Silver	0.0491	0.0050	0.05		98	70	130	0.04948	0.7	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: 15103

Run ID :Run Order: ICPMS204-B_111214A: 80 SampType: Sample Matrix Spike Duplicate Sample ID: H11120149-006CMSD3 Method: E200.8

Analysis Date: 12/14/11 20:12 Units: mg/L Prep Info: Prep Date: 12/13/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	26.5	1.0	25	1.629	100	70	130	26.04	1.9	20	
Thallium	0.513	0.0050	0.5		103	70	130	0.5154	0.5	20	
Vanadium	0.502	0.10	0.5	0.0005112	100	70	130	0.4997	0.4	20	
Zinc	0.975	0.010	0.5	0.4947	96	70	130	0.9809	0.6	20	

Associated samples: H11120150-003C

Run ID :Run Order: ICPMS204-B_111220A: 89 SampType: Method Blank Sample ID: MB-15103 Method: E200.8

Analysis Date: 12/20/11 16:35 Units: mg/L Prep Info: Prep Date: 12/13/2011 Prep Method: E200.2

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.0007									
Antimony	ND	4E-05									
Arsenic	7E-05	5E-05									
Barium	ND	9E-05									
Beryllium	ND	2E-05									
Cadmium	ND	2E-05									
Calcium	ND	0.04									
Chromium	ND	6E-05									
Cobalt	ND	3E-05									
Copper	ND	0.0004									
Iron	0.0007	0.0006									
Lead	ND	2E-05									
Magnesium	ND	0.003									
Manganese	ND	6E-05									
Nickel	ND	0.0002									
Potassium	ND	0.07									
Selenium	ND	0.0002									
Silver	ND	6E-05									
Sodium	0.08	0.04									
Thallium	ND	2E-05									
Vanadium	0.0003	5E-05									
Zinc	0.001	0.0003									

Associated samples: H11120150-003C

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: C_32236

Run ID :Run Order: SUB-C154551: 4	SampType: Method Blank				Sample ID: MB-32236				Method: E245.7		
Analysis Date: 12/19/11 14:09	Units: ng/L				Prep Info: Prep Date: 12/19/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.8	0.6									

Associated samples: **H11120150-003D; H11120150-007A**

Run ID :Run Order: SUB-C154551: 5	SampType: Laboratory Control Sample				Sample ID: LCS-32236				Method: E245.7		
Analysis Date: 12/19/11 14:12	Units: ng/L				Prep Info: Prep Date: 12/19/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	23.1	5.0	25	0.7674	89	78.7	116				

Associated samples: **H11120150-003D; H11120150-007A**

Run ID :Run Order: SUB-C154551: 7	SampType: Sample Matrix Spike				Sample ID: C11120447-001DMS				Method: E245.7		
Analysis Date: 12/19/11 14:17	Units: ng/L				Prep Info: Prep Date: 12/19/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	8.88	5.0	10	0.6822	82	63	111				

Associated samples: **H11120150-003D; H11120150-007A**

Run ID :Run Order: SUB-C154551: 8	SampType: Sample Matrix Spike Duplicate				Sample ID: C11120447-001DMSD				Method: E245.7		
Analysis Date: 12/19/11 14:20	Units: ng/L				Prep Info: Prep Date: 12/19/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	9.02	5.0	10	0.6822	83	63	111	8.876	1.6	18	

Associated samples: **H11120150-003D; H11120150-007A**

Run ID :Run Order: SUB-C154551: 22	SampType: Sample Matrix Spike				Sample ID: H11120194-002D				Method: E245.7		
Analysis Date: 12/19/11 14:51	Units: ng/L				Prep Info: Prep Date: 12/19/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	8.44	5.0	10	1.392	70	63	111				

Associated samples: **H11120150-003D; H11120150-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: C_32236

Run ID :Run Order: SUB-C154551: 23	SampType: Sample Matrix Spike Duplicate				Sample ID: H11120194-002D				Method: E245.7		
Analysis Date: 12/19/11 14:53	Units: ng/L				Prep Info: Prep Date: 12/19/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	9.79	5.0	10	1.392	84	63	111	8.436	15	18	

Associated samples: **H11120150-003D; H11120150-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: C_HG-245-7_111219A

Run ID :Run Order: SUB-C154551:2		SampType: Initial Calibration Blank, Instrument Blank				Sample ID: ICB			Method: E245.7		
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Analysis Date: 12/19/11 14:04	Units: ng/L					Prep Info:	Prep Date:	Prep Method:			
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	-2.61	5.0				0	0				
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Associated samples: **H11120150-003D; H11120150-007A**

Run ID :Run Order: SUB-C154551:3		SampType: Continuing Calibration Verification Standard				Sample ID: IPR			Method: E245.7		
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Analysis Date: 12/19/11 14:07	Units: ng/L					Prep Info:	Prep Date:	Prep Method:			
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	9.11	5.0	10		91	78	108				
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Associated samples: **H11120150-003D; H11120150-007A**

Run ID :Run Order: SUB-C154551:10		SampType: Continuing Calibration Verification Standard				Sample ID: OPR			Method: E245.7		
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Analysis Date: 12/19/11 14:34	Units: ng/L					Prep Info:	Prep Date:	Prep Method:			
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	8.38	5.0	10		84	76	113				
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Associated samples:

Run ID :Run Order: SUB-C154551:18		SampType: Continuing Calibration Verification Standard				Sample ID: OPR			Method: E245.7		
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Analysis Date: 12/19/11 15:03	Units: ng/L					Prep Info:	Prep Date:	Prep Method:			
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	10.4	5.0	10		104	76	113				
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Associated samples:

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76690

Run ID :Run Order: MAN-TECH_111212B: 8	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
Analysis Date: 12/12/11 17:29	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	ND	2	

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 10	SampType: Laboratory Control Sample	Sample ID: LCS-11282011	Method: A2320 B
Analysis Date: 12/12/11 17:37	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	610	4.0 600	102 90 110

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 20	SampType: Sample Duplicate	Sample ID: H11120149-004ADUP	Method: A2320 B
Analysis Date: 12/12/11 18:11	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	100	4.0	103.2 0.4 10
Bicarbonate as HCO3	130	4.0	125.9 0.4 10
Carbonate as CO3	ND	4.0	

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 38	SampType: Sample Matrix Spike	Sample ID: H11120150-003AMS	Method: A2320 B
Analysis Date: 12/12/11 19:15	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	670	4.0 600	107.9 93 80 120

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 46	SampType: Sample Duplicate	Sample ID: H11120150-006ADUP	Method: A2320 B
Analysis Date: 12/12/11 19:42	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	76	4.0	75.72 0.3 10
Bicarbonate as HCO3	92	4.0	92.38 0.2 10
Carbonate as CO3	ND	4.0	

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76690

Run ID :Run Order: MAN-TECH_111212B: 46	SampType: Sample Duplicate	Sample ID: H11120150-006ADUP	Method: A2320 B
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Analysis Date: 12/12/11 19:42	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76690

Date: 30-Dec-11

Run ID :Run Order: MAN-TECH_111212B: 2	SampType: Continuing Calibration Verification Standard	Sample ID: CCV1-2199	Method: A4500-H B
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Analysis Date: 12/12/11 17:11	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	3.94	0.10	4		99	97	103				
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 3	SampType: Continuing Calibration Verification Standard	Sample ID: CCV-2290	Method: A4500-H B
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Analysis Date: 12/12/11 17:14	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	7.02	0.10	7		100	98	102				
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 4	SampType: Continuing Calibration Verification Standard	Sample ID: CCV3-2326	Method: A4500-H B
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Analysis Date: 12/12/11 17:17	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	10.0	0.10	10		101	99	101				
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 5	SampType: Initial Calibration Verification Standard	Sample ID: ICV-2326	Method: A4500-H B
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Analysis Date: 12/12/11 17:20	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	7.02	0.10	7		100	98	102				
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Run ID :Run Order: MAN-TECH_111212B: 47	SampType: Sample Duplicate	Sample ID: H11120150-006ADUP	Method: A4500-H B
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Analysis Date: 12/12/11 19:42	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	8.06	0.10				8.06		0.0		3	
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Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76690

Run ID :Run Order: MAN-TECH_111212B: 68	SampType: Sample Duplicate	Sample ID: H11120156-007ADUP	Method: A4500-H B
Analysis Date: 12/12/11 20:54	Units: s.u.	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
pH	7.85	0.10	7.74 1.4 3

Associated samples: **H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76698

Run ID :Run Order: IC102-H_111212A: 15 SampType: Initial Calibration Verification Standard Sample ID: ICV121211-12 Method: E300.0

Analysis Date: 12/12/11 14:12 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride 100 1.0 100 100 90 110

Sulfate 400 1.0 400 101 90 110

Associated samples: H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A

Run ID :Run Order: IC102-H_111212A: 16 SampType: Method Blank Sample ID: ICB121211-13 Method: E300.0

Analysis Date: 12/12/11 14:26 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride ND 0.02

Sulfate ND 0.02

Associated samples: H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A

Run ID :Run Order: IC102-H_111212A: 17 SampType: Laboratory Fortified Blank Sample ID: LFB121211-14 Method: E300.0

Analysis Date: 12/12/11 14:39 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride 49 1.0 50 99 90 110

Sulfate 190 1.1 200 97 90 110

Associated samples: H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A

Run ID :Run Order: IC102-H_111212A: 48 SampType: Continuing Calibration Verification Standard Sample ID: CCV121211-44 Method: E300.0

Analysis Date: 12/12/11 21:41 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride 100 1.0 100 101 90 110

Sulfate 400 1.0 400 100 90 110

Associated samples: H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A

Run ID :Run Order: IC102-H_111212A: 53 SampType: Sample Matrix Spike Sample ID: H11120150-003AMS Method: E300.0

Analysis Date: 12/12/11 22:49 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride 50 1.0 50 0.702 99 90 110

Sulfate 190 1.1 200 1.284 97 90 110

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76698

Run ID :Run Order: IC102-H_111212A: 53 SampType: Sample Matrix Spike Sample ID: H11120150-003AMS Method: E300.0

Analysis Date: 12/12/11 22:49 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A

Run ID :Run Order: IC102-H_111212A: 54 SampType: Sample Matrix Spike Duplicate Sample ID: H11120150-003AMSD Method: E300.0

Analysis Date: 12/12/11 23:02 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50	0.702	100	90	110	50.13	0.7	20
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Sulfate	200	1.1	200	1.284	98	90	110	194.8	0.8	20
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Associated samples: H11120150-001A; H11120150-002A; H11120150-003A; H11120150-004A; H11120150-005A; H11120150-006A

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76725

Run ID :Run Order: ICP2-HE_111213A: 6 SampType: Initial Calibration Verification Standard Sample ID: ICV Method: E200.7

Analysis Date: 12/13/11 11:34 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.07	0.10	4		102	95	105				
Calcium	39.8	1.0	40		100	95	105				
Magnesium	39.4	1.0	40		98	95	105				
Potassium	39.2	1.0	40		98	95	105				
Sodium	39.4	1.0	40		99	95	105				

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 7 SampType: Continuing Calibration Verification Standard Sample ID: CCV-1 Method: E200.7

Analysis Date: 12/13/11 11:38 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.53	0.10	2.5		101	95	105				
Calcium	24.6	1.0	25		98	95	105				
Magnesium	24.2	1.0	25		97	95	105				
Potassium	23.8	1.0	25		95	95	105				
Sodium	23.9	1.0	25		95	95	105				

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 10 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.7

Analysis Date: 12/13/11 11:49 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	515	0.10	500		103	80	120				
Calcium	456	1.0	500		91	80	120				
Magnesium	476	1.0	500		95	80	120				
Potassium	-0.00395	1.0				0	0				
Sodium	0.0891	1.0				0	0				

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 11 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.7

Analysis Date: 12/13/11 11:53 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	516	0.10	500		103	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76725

Date: 30-Dec-11

Run ID :Run Order: ICP2-HE_111213A: 11 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.7

Analysis Date: 12/13/11 11:53 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	463	1.0	500		93	80	120				
Magnesium	479	1.0	500		96	80	120				
Potassium	20.3	1.0	20		101	80	120				
Sodium	20.2	1.0	20		101	80	120				

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 13 SampType: Method Blank Sample ID: ICB Method: E200.7

Analysis Date: 12/13/11 12:01 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Calcium	0.03	0.008									
Magnesium	ND	0.003									
Potassium	ND	0.04									
Sodium	0.05	0.01									

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 14 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.7

Analysis Date: 12/13/11 12:05 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.80	0.10	5		96	85	115				
Calcium	46.4	1.0	50	0.03105	93	85	115				
Magnesium	43.8	1.0	50		88	85	115				
Potassium	44.5	1.0	50		89	85	115				
Sodium	45.2	1.0	50	0.0483	90	85	115				

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 19 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E200.7

Analysis Date: 12/13/11 12:23 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.54	0.10	2.5		102	90	110				
Calcium	24.4	1.0	25		97	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76725

Run ID :Run Order: ICP2-HE_111213A: 19		SampType: Continuing Calibration Verification Standard				Sample ID: CCV			Method: E200.7			
Analysis Date: 12/13/11 12:23		Units: mg/L				Prep Info:		Prep Date:		Prep Method:		
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium		23.0	1.0	25		92	90	110				
Potassium		22.7	1.0	25		91	90	110				
Sodium		22.9	1.0	25		92	90	110				

Associated samples: H11120150-001B; H11120150-002B

Run ID :Run Order: ICP2-HE_111213A: 31		SampType: Continuing Calibration Verification Standard				Sample ID: CCV			Method: E200.7			
Analysis Date: 12/13/11 13:07		Units: mg/L				Prep Info:		Prep Date:		Prep Method:		
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		2.53	0.10	2.5		101	90	110				
Calcium		24.1	1.0	25		96	90	110				
Magnesium		22.5	1.0	25		90	90	110				
Potassium		22.9	1.0	25		92	90	110				
Sodium		23.2	1.0	25		93	90	110				

Associated samples: H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 34		SampType: Sample Matrix Spike				Sample ID: H11120150-002BMS2			Method: E200.7			
Analysis Date: 12/13/11 13:18		Units: mg/L				Prep Info:		Prep Date:		Prep Method:		
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		4.67	0.10	5		93	70	130				
Calcium		73.5	1.0	50	25.13	97	70	130				
Magnesium		53.1	1.0	50	7.825	91	70	130				
Potassium		47.1	1.0	50	0.6778	93	70	130				
Sodium		49.2	1.0	50	2.033	94	70	130				

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Run ID :Run Order: ICP2-HE_111213A: 35		SampType: Sample Matrix Spike Duplicate				Sample ID: H11120150-002BMSD2			Method: E200.7			
Analysis Date: 12/13/11 13:22		Units: mg/L				Prep Info:		Prep Date:		Prep Method:		
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		4.66	0.10	5		93	70	130	4.67	0.1	20	
Calcium		73.5	1.0	50	25.13	97	70	130	73.47	0.0	20	
Magnesium		53.2	1.0	50	7.825	91	70	130	53.12	0.1	20	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76725

Run ID :Run Order: ICP2-HE_111213A: 35 SampType: Sample Matrix Spike Duplicate Sample ID: H11120150-002BMSD2 Method: E200.7

Analysis Date: 12/13/11 13:22 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium		46.4	1.0	50	0.6778	91	70	130	47.09	1.5	20	
Sodium		48.5	1.0	50	2.033	93	70	130	49.21	1.4	20	

Associated samples: H11120150-001B; H11120150-002B; H11120150-003B; H11120150-004B; H11120150-005B; H11120150-006B

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 8		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD			Method: E200.8				
Analysis Date: 12/14/11 10:56		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.271	0.10	0.25		108	90	110				
Antimony		0.0514	0.050	0.05		103	90	110				
Arsenic		0.0515	0.0050	0.05		103	90	110				
Barium		0.0517	0.10	0.05		103	90	110				
Beryllium		0.0266	0.0010	0.025		107	90	110				
Cadmium		0.0272	0.0010	0.025		109	90	110				
Calcium		2.64	0.50	2.5		106	90	110				
Chromium		0.0521	0.010	0.05		104	90	110				
Cobalt		0.0510	0.010	0.05		102	90	110				
Copper		0.0537	0.010	0.05		107	90	110				
Iron		0.258	0.030	0.25		103	90	110				
Lead		0.0514	0.010	0.05		103	90	110				
Magnesium		2.61	0.50	2.5		104	90	110				
Manganese		0.264	0.010	0.25		106	90	110				
Mercury		0.00209	0.0010	0.002		104	90	110				
Nickel		0.0532	0.010	0.05		106	90	110				
Potassium		2.65	0.50	2.5		106	90	110				
Selenium		0.0524	0.0050	0.05		105	90	110				
Silver		0.0250	0.0050	0.025		100	90	110				
Sodium		2.63	0.50	2.5		105	90	110				
Thallium		0.0519	0.10	0.05		104	90	110				
Vanadium		0.0513	0.10	0.05		103	90	110				
Zinc		0.0545	0.010	0.05		109	90	110				

Associated samples: H11120150-001C; H11120150-002C; H11120150-003C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 9		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 12/14/11 11:02		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		38.1	0.10	40		95	70	130				
Antimony		0.000269	0.050									
Arsenic		4.90E-05	0.0050									
Barium		0.000115	0.10									
Beryllium		1.90E-05	0.0010									

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT
Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 9		SampType: Interference Check Sample A			Sample ID: ICSA				Method: E200.8			
Analysis Date: 12/14/11 11:02		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium		0.000841	0.0010									
Calcium		116	0.50	120		96	70	130				
Chromium		0.00112	0.010									
Cobalt		0.000132	0.010									
Copper		0.000528	0.010									
Iron		96.7	0.030	100		97	70	130				
Lead		0.000123	0.010									
Magnesium		38.7	0.50	40		97	70	130				
Manganese		0.000144	0.010									
Mercury		3.00E-05	0.0010									
Nickel		0.000481	0.010									
Potassium		39.1	0.50	40		98	70	130				
Selenium		8.70E-05	0.0050									
Silver		7.70E-05	0.0050									
Sodium		96.6	0.50	100		97	70	130				
Thallium		1.70E-05	0.10									
Vanadium		0.000251	0.10									
Zinc		0.00117	0.010									

Associated samples: H11120150-001C; H11120150-002C; H11120150-003C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 10		SampType: Interference Check Sample AB			Sample ID: ICSAB				Method: E200.8			
Analysis Date: 12/14/11 11:09		Units: mg/L			Prep Info:		Prep Date:		Prep Method:			
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		39.8	0.10	40		100	70	130				
Antimony		0.000264	0.050				0	0				
Arsenic		0.0104	0.0050	0.01		104	70	130				
Barium		9.70E-05	0.10				0	0				
Beryllium		1.00E-05	0.0010				0	0				
Cadmium		0.0106	0.0010	0.01		106	70	130				
Calcium		121	0.50	120		101	70	130				
Chromium		0.0217	0.010	0.02		109	70	130				
Cobalt		0.0202	0.010	0.02		101	70	130				
Copper		0.0203	0.010	0.02		102	70	130				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/14/11 11:09 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	100	0.030	100		100	70	130				
Lead	0.000128	0.010				0	0				
Magnesium	40.9	0.50	40		102	70	130				
Manganese	0.0201	0.010	0.02		100	70	130				
Mercury	2.00E-05	0.0010				0	0				
Nickel	0.0209	0.010	0.02		104	70	130				
Potassium	41.2	0.50	40		103	70	130				
Selenium	0.0100	0.0050	0.01		100	70	130				
Silver	0.0195	0.0050	0.02		97	70	130				
Sodium	102	0.50	100		102	70	130				
Thallium	9.00E-06	0.10				0	0				
Vanadium	0.0211	0.10	0.02		105	70	130				
Zinc	0.0112	0.010	0.01		113	70	130				

Associated samples: H11120150-001C; H11120150-002C; H11120150-003C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 26 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 12/14/11 14:18 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0003									
Antimony	ND	7E-06									
Arsenic	ND	3E-05									
Barium	ND	3E-05									
Beryllium	ND	2E-05									
Cadmium	ND	1E-05									
Calcium	ND	0.003									
Chromium	ND	6E-05									
Cobalt	ND	9E-06									
Copper	ND	3E-05									
Iron	ND	0.0002									
Lead	ND	1.0E-05									
Magnesium	ND	0.0007									
Manganese	2E-05	1E-05									
Mercury	1.0E-05	9E-06									

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 26 SampType: Method Blank Sample ID: ICB Method: E200.8

Analysis Date: 12/14/11 14:18 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	5E-05									
Potassium	0.02	0.010									
Selenium	ND	4E-05									
Silver	ND	3E-05									
Sodium	ND	0.003									
Thallium	ND	7E-06									
Vanadium	ND	1E-05									
Zinc	0.0008	0.0003									

Associated samples: H11120150-001C; H11120150-002C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 27 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 12/14/11 14:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0494	0.10	0.05		99	85	115				
Antimony	0.0492	0.050	0.05		98	85	115				
Arsenic	0.0507	0.0050	0.05		101	85	115				
Barium	0.0499	0.10	0.05		100	85	115				
Beryllium	0.0485	0.0010	0.05		97	85	115				
Cadmium	0.0490	0.0010	0.05		98	85	115				
Calcium	49.7	0.50	50		99	85	115				
Chromium	0.0510	0.010	0.05		102	85	115				
Cobalt	0.0491	0.010	0.05		98	85	115				
Copper	0.0492	0.010	0.05		98	85	115				
Iron	5.04	0.030	5		101	85	115				
Lead	0.0505	0.010	0.05		101	85	115				
Magnesium	48.1	0.50	50		96	85	115				
Manganese	0.0495	0.010	0.05	0.0000218	99	85	115				
Mercury	0.00102	0.0010	0.001	0.0000097	101	85	115				
Nickel	0.0503	0.010	0.05		101	85	115				
Potassium	50.2	0.50	50	0.01946	100	85	115				
Selenium	0.0496	0.0050	0.05		99	85	115				
Silver	0.0197	0.0050	0.02		98	85	115				
Sodium	48.8	0.50	50		98	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 27 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 12/14/11 14:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0508	0.10	0.05		101	85	115				
Vanadium	0.0515	0.10	0.05		103	85	115				
Zinc	0.0508	0.010	0.05	0.0007962	100	85	115				

Associated samples: H11120150-001C; H11120150-002C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 92 SampType: Sample Matrix Spike Sample ID: H11120150-002CMS Method: E200.8

Analysis Date: 12/14/11 21:30 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0561	0.10	0.05	0.01007	92	70	130				
Antimony	0.0483	0.0050	0.05		97	70	130				
Arsenic	0.0499	0.0050	0.05	0.0004941	99	70	130				
Barium	0.224	0.10	0.05	0.176	96	70	130				
Beryllium	0.0473	0.0010	0.05		95	70	130				
Cadmium	0.0469	0.0010	0.05		94	70	130				
Calcium	72.4	1.0	50	25.83	93	70	130				
Chromium	0.0493	0.010	0.05		99	70	130				
Cobalt	0.0470	0.010	0.05		94	70	130				
Copper	0.0473	0.010	0.05		95	70	130				
Iron	4.78	0.030	5	0.06479	94	70	130				
Lead	0.0484	0.010	0.05	0.0000225	97	70	130				
Magnesium	55.4	1.0	50	8.896	93	70	130				
Manganese	0.0509	0.010	0.05	0.00298	96	70	130				
Mercury	0.000930	0.0010	0.001		93	70	130				
Nickel	0.0477	0.010	0.05		95	70	130				
Potassium	49.7	1.0	50	0.8188	98	70	130				
Selenium	0.0477	0.0050	0.05		95	70	130				
Silver	0.0187	0.0050	0.02		93	70	130				
Sodium	49.4	1.0	50	2.185	94	70	130				
Thallium	0.0483	0.0050	0.05	0.0000301	97	70	130				
Vanadium	0.0496	0.10	0.05	0.0001962	99	70	130				
Zinc	0.0509	0.010	0.05	0.001229	99	70	130				

Associated samples: H11120150-001C; H11120150-002C; H11120150-004C; H11120150-005C; H11120150-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 93 SampType: Sample Matrix Spike Duplicate Sample ID: H11120150-002CMSD Method: E200.8

Analysis Date: 12/14/11 21:37 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0558	0.10	0.05	0.01007	92	70	130	0.05612	20		
Antimony	0.0482	0.0050	0.05		96	70	130	0.04827	0.1	20	
Arsenic	0.0491	0.0050	0.05	0.0004941	97	70	130	0.04989	1.5	20	
Barium	0.223	0.10	0.05	0.176	94	70	130	0.2238	0.4	20	
Beryllium	0.0466	0.0010	0.05		93	70	130	0.04728	1.5	20	
Cadmium	0.0460	0.0010	0.05		92	70	130	0.04691	1.9	20	
Calcium	73.6	1.0	50	25.83	96	70	130	72.4	1.7	20	
Chromium	0.0488	0.010	0.05		98	70	130	0.04934	1.2	20	
Cobalt	0.0467	0.010	0.05		93	70	130	0.04703	0.7	20	
Copper	0.0471	0.010	0.05		94	70	130	0.04729	0.4	20	
Iron	4.84	0.030	5	0.06479	95	70	130	4.776	1.3	20	
Lead	0.0476	0.010	0.05	0.0000225	95	70	130	0.04841	1.6	20	
Magnesium	55.2	1.0	50	8.896	93	70	130	55.36	0.3	20	
Manganese	0.0512	0.010	0.05	0.00298	96	70	130	0.05092	0.5	20	
Mercury	0.000966	0.0010	0.001		97	70	130	0.00093	20		
Nickel	0.0478	0.010	0.05		96	70	130	0.04766	0.2	20	
Potassium	49.6	1.0	50	0.8188	98	70	130	49.74	0.3	20	
Selenium	0.0475	0.0050	0.05		95	70	130	0.04773	0.4	20	
Silver	0.0189	0.0050	0.02		95	70	130	0.01867	1.2	20	
Sodium	49.4	1.0	50	2.185	94	70	130	49.41	0.0	20	
Thallium	0.0479	0.0050	0.05	0.0000301	96	70	130	0.0483	0.9	20	
Vanadium	0.0492	0.10	0.05	0.0001962	98	70	130	0.04964	20		
Zinc	0.0492	0.010	0.05	0.001229	96	70	130	0.05091	3.5	20	

Associated samples: H11120150-001C; H11120150-002C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 113 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/14/11 23:47 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.260	0.10	0.25		104	90	110				
Antimony	0.0506	0.050	0.05		101	90	110				
Arsenic	0.0510	0.0050	0.05		102	90	110				
Barium	0.0513	0.10	0.05		103	90	110				
Beryllium	0.0257	0.0010	0.025		103	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 113 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/14/11 23:47 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0271	0.0010	0.025		108	90	110				
Calcium	2.62	0.50	2.5		105	90	110				
Chromium	0.0519	0.010	0.05		104	90	110				
Cobalt	0.0525	0.010	0.05		105	90	110				
Copper	0.0537	0.010	0.05		107	90	110				
Iron	0.255	0.030	0.25		102	90	110				
Lead	0.0524	0.010	0.05		105	90	110				
Magnesium	2.61	0.50	2.5		104	90	110				
Manganese	0.271	0.010	0.25		108	90	110				
Mercury	0.00207	0.0010	0.002		104	90	110				
Nickel	0.0520	0.010	0.05		104	90	110				
Potassium	2.59	0.50	2.5		104	90	110				
Selenium	0.0532	0.0050	0.05		106	90	110				
Silver	0.0250	0.0050	0.025		100	90	110				
Sodium	2.65	0.50	2.5		106	90	110				
Thallium	0.0528	0.10	0.05		106	90	110				
Vanadium	0.0516	0.10	0.05		103	90	110				
Zinc	0.0534	0.010	0.05		107	90	110				

Associated samples: H11120150-001C; H11120150-002C; H11120150-003C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 114 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/14/11 23:54 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.6	0.10	40		96	70	130				
Antimony	0.000274	0.050									
Arsenic	5.90E-05	0.0050									
Barium	7.10E-05	0.10									
Beryllium	1.70E-05	0.0010									
Cadmium	0.000778	0.0010									
Calcium	117	0.50	120		97	70	130				
Chromium	0.00114	0.010									
Cobalt	0.000134	0.010									
Copper	0.000396	0.010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 114 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/14/11 23:54 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	95.6	0.030	100		96	70	130				
Lead	0.000128	0.010									
Magnesium	39.2	0.50	40		98	70	130				
Manganese	7.60E-05	0.010									
Mercury	2.60E-05	0.0010									
Nickel	0.000522	0.010									
Potassium	38.9	0.50	40		97	70	130				
Selenium	8.20E-05	0.0050									
Silver	8.20E-05	0.0050									
Sodium	96.6	0.50	100		97	70	130				
Thallium	2.10E-05	0.10									
Vanadium	0.000239	0.10									
Zinc	0.00117	0.010									

Associated samples: H11120150-001C; H11120150-002C; H11120150-003C; H11120150-004C; H11120150-005C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111214A: 115 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/15/11 00:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.5	0.10	40		101	70	130				
Antimony	0.000256	0.050				0	0				
Arsenic	0.0104	0.0050	0.01		104	70	130				
Barium	0.000102	0.10				0	0				
Beryllium	4.00E-06	0.0010				0	0				
Cadmium	0.0105	0.0010	0.01		105	70	130				
Calcium	122	0.50	120		102	70	130				
Chromium	0.0215	0.010	0.02		108	70	130				
Cobalt	0.0206	0.010	0.02		103	70	130				
Copper	0.0204	0.010	0.02		102	70	130				
Iron	101	0.030	100		101	70	130				
Lead	0.000124	0.010				0	0				
Magnesium	41.2	0.50	40		103	70	130				
Manganese	0.0198	0.010	0.02		99	70	130				
Mercury	6.00E-06	0.0010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76786

Run ID :Run Order: ICPMS204-B_111214A: 115 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/15/11 00:00 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0207	0.010	0.02		103	70	130				
Potassium	40.7	0.50	40		102	70	130				
Selenium	0.0102	0.0050	0.01		102	70	130				
Silver	0.0195	0.0050	0.02		98	70	130				
Sodium	102	0.50	100		102	70	130				
Thallium	1.60E-05	0.10				0	0				
Vanadium	0.0210	0.10	0.02		105	70	130				
Zinc	0.0111	0.010	0.01		111	70	130				

Associated samples: H11120150-001C; H11120150-002C; H11120150-003C; H11120150-004C; H11120150-005C; H11120150-006C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 45 of 52

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76896

Date: 30-Dec-11

Run ID :Run Order: ICPMS204-B_111220A: 8 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/19/11 14:04 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0511	0.010	0.05		102	90	110				
Mercury	0.00199	0.0010	0.002		100	90	110				

Associated samples: H11120150-003C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111220A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/19/11 14:11 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.000389	0.010									
Mercury	3.20E-05	0.0010									

Associated samples: H11120150-003C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111220A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/19/11 14:17 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0220	0.010	0.02		110	70	130				
Mercury	2.70E-05	0.0010				0	0				

Associated samples: H11120150-003C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111220A: 38 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/20/11 03:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0515	0.010	0.05		103	90	110				
Mercury	0.00195	0.0010	0.002		97	90	110				

Associated samples: H11120150-003C; H11120150-006C

Run ID :Run Order: ICPMS204-B_111220A: 39 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/20/11 03:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.000230	0.010									
Mercury	4.30E-05	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 39	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 12/20/11 03:25	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11120150-003C; H11120150-006C**

Run ID :Run Order: ICPMS204-B_111220A: 40	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 12/20/11 03:32	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Copper	0.0222	0.010	0.02	111	70	130					
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Mercury	2.70E-05	0.0010			0	0					
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Associated samples: **H11120150-003C; H11120150-006C**

Run ID :Run Order: ICPMS204-B_111220A: 51	SampType: Method Blank	Sample ID: ICB	Method: E200.8
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Analysis Date: 12/20/11 11:30	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	ND	9E-06									
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Associated samples: **H11120150-006C**

Run ID :Run Order: ICPMS204-B_111220A: 52	SampType: Laboratory Fortified Blank	Sample ID: LFB	Method: E200.8
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Analysis Date: 12/20/11 11:36	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00106	0.0010	0.001	106	85	115					
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Associated samples: **H11120150-006C**

Run ID :Run Order: ICPMS204-B_111220A: 54	SampType: Interference Check Sample A	Sample ID: ICSA	Method: E200.8
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Analysis Date: 12/20/11 12:44	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Copper	0.000276	0.010									
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Mercury	2.90E-05	0.0010									
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Associated samples: **H11120150-003C; H11120150-006C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120150

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 30-Dec-11

Project: UBMC Surface Water Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 55	SampType: Interference Check Sample AB	Sample ID: ICSAB	Method: E200.8
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Analysis Date: 12/20/11 12:50	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0218	0.010	0.02		109	70	130				
Mercury	2.20E-05	0.0010				0	0				

Associated samples: **H11120150-003C; H11120150-006C**

Run ID :Run Order: ICPMS204-B_111220A: 94	SampType: Sample Matrix Spike	Sample ID: H11120150-006CMS	Method: E200.8
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Analysis Date: 12/20/11 17:07	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00102	0.0010	0.001		102	70	130				

Associated samples: **H11120150-006C**

Run ID :Run Order: ICPMS204-B_111220A: 95	SampType: Sample Matrix Spike Duplicate	Sample ID: H11120150-006CMSD	Method: E200.8
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Analysis Date: 12/20/11 17:14	Units: mg/L	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000990	0.0010	0.001		99	70	130	0.00102		20	

Associated samples: **H11120150-006C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11120150

Login completed by: Tracy L. Lorash

Date Received: 12/12/2011

Reviewed by: BL2000\sdull

Received by: wjj

Reviewed Date: 12/14/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	°C See Comments		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

Cooler #1 received with a temperature of 0.4C and cooler #2 @ 2.3C. TI 12/12/11.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:

M D E Q

Report Mail Address:

Quake: H - 645

Invoice Address:

Sect. 35 Baseline Surface Water

Shallow Mt. gau

Hillside

8415033

J. Tanaka

Page 50 of 52

Invoice Contact & Phone:

Purchase Order:

Quote/Bottle Order:

Project Name, PWS Permit, Etc.

Number of Containers

Air Water Soils/Solids

Vegetation Bioassay Other

DW - Drinking Water

Sample Origin

EPA/State Compliance:

State: NY

Yes No

Sampler: (Please Print)

A. J. Resnick

Email: A.J.Resnick@jtanaka.com

Signature:

Special Report/Formats:

DW

POTWWWWTP

State:

Other:

EDDIEDT (Electronic Data)

Format:

LEVEL IV

NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Shipped by Rushed
Cooler ID# Y

Receipt Temp 44 °C

On Ice: N

Custody Seal O

On Bottle N

On Coder N

Intact N

Signature John Tanaka

Date/Time: 12/10/11 7:45

Signature: John Tanaka

SEE ATTACHED

Standard Turnaround (TAT)

R U S H

Comments: Please copy rush info addressed to por Payne inc. 402-490-5135

402-490-5135

cooler #2 Red

402-490-5135

cooler #2 Red

402-490-5135

cooler #2 Red

402-490-5135

cooler #2 Red

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	ANALYSIS REQUESTED									
				RUSH									
1 535 SW 05	12/10/11	0945	W	5	3	5	Baseline	SW	cooler	#	white	0.4	
2 535 SW 01		1125											
3 535 SW 06		1130											
4 535 SW 02		1220											
5 535 SW 04		1345											
6 535 SW 03	12/10/11	1500	W										
7													
8													
9													
10													

Custody Record

Requisitioned by (print):

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

Released by (print):

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

Retinished by (print):

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

Received by Laboratory:

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

Lab Disposal:

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

Received by Client:

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

Sample Disposal:

John Tanaka

Date/Time:

12/10/11 7:45

Signature:

John Tanaka

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Quotation for Analytical Services # H645

Company:	MT DEQ-Site Response	Submitted By:	
Contact:	Shellie Haaland	Project:	UBMC
Address:	PO Box 200901 Helena, MT 59620-0901	TAT:	10 Working days
Phone:	(406) 841-5033	QC Level:	STD
	Fax:	Quote Date:	30-Apr-11
		Expires:	31-Dec-12

Matrix	Test Name	Test	Remarks	# Samp	Unit Price	Test Total
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Schedule: UBMC Surface Water Section 35 Baseline

Schedule Sample Price: \$425.00
Schedule Total: \$425.00

* Schedule: UBMC Ground Water Section 35 Baseline

Aqueous	Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1	\$15.00
	Alkalinity	A2320 B		1	\$10.00	1	\$10.00
	Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
	Conductivity	A2510 B		1	\$10.00	1	\$10.00
	Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
	Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
	pH	A4500-H B		1	\$10.00	1	\$10.00
	Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1	\$15.00
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$200.00	1	\$200.00
	Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$200.00	1	\$200.00
	Mercury, Total	E245.7	Only used if can not be achieved by other methods.	1	\$50.00	1	\$50.00
	Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1	\$20.00

Schedule Sample Price: \$560.00
Schedule Total: \$560.00

Schedule: Sediment

Metals by ICP/ICPMS, Total	E6010.20	1	\$80.00	1	\$80.00
Digestion, Total Metals	SW3050 B	1	\$25.00	1	\$25.00

Schedule Sample Price: \$105.00
Schedule Total: \$105.00

Quote Comments:	Shipping Labels provided at 12.00 a cooler by UPS or FED EX.	Quote Sub Total:	\$1,680.00
		Misc:	\$0.00
		Discount:	30.00%
		WO Adjustment:	\$0.00

QUOTE TOTAL: \$1,176.00

General Comments: Price per sampling event. Sampling to be completed by Portage Inc. 1065 N Ewing Helena, MT 406-457-0056

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents .

* Methods and/or parameters included in the indicated test group.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<u>UBMC Surface Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

ANALYTICAL SUMMARY REPORT

January 23, 2012

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11120194 Quote ID: H645 - UBMC

Project Name: UBMC Groundwater Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 8 samples for MT DEQ-Site Response on 12/14/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11120194-001	S35MW08	12/12/11 9:40	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120194-002	S35MW01	12/12/11 12:10	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120194-003	S35MW09	12/12/11 12:40	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended

ANALYTICAL SUMMARY REPORT

H11120194-004	S35MW03	12/12/11 14:40	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120194-005	S35MW06	12/13/11 13:00	12/14/11	Groundwater	Same As Above
H11120194-006	S35MW07	12/13/11 13:05	12/14/11	Groundwater	Same As Above
H11120194-007	S35MW04	12/13/11 14:20	12/14/11	Groundwater	Same As Above
H11120194-008	TB Hg2004 HCL EM 12-7- 11	12/12/11 9:40	12/14/11	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: UBMC Groundwater Section 35 Baseline
Sample Delivery Group: H11120194

Report Date: 01/23/12

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11120194-001
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 09:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.8	s.u.		0.1		A4500-H B	12/14/11 16:53 / cmm		MAN-TECH_111214C : 17		R76758
Conductivity	1	umhos/cm		1		A2510 B	12/14/11 10:33 / cmm		COND_111214A : 1211214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/14/11 13:46 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 5			15120
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	12/14/11 13:38 / cmm	12/14/11 09:41 J-124 (14410200)_111214B : 5			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	12/14/11 16:53 / cmm		MAN-TECH_111214C : 16		R76758
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	12/14/11 16:53 / cmm		MAN-TECH_111214C : 16		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 16:53 / cmm		MAN-TECH_111214C : 16		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 14:08 / zeg		IC102-H_111214A : 24		R76791
Sulfate	ND	mg/L		1		E300.0	12/14/11 14:08 / zeg		IC102-H_111214A : 24		R76791
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 1		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Antimony	ND	mg/L		0.003		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Barium	ND	mg/L		0.005		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Calcium	ND	mg/L		1		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Chromium	ND	mg/L		0.001		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Copper	ND	mg/L		0.001		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Iron	ND	mg/L		0.05		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Lead	ND	mg/L		0.0005		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Magnesium	ND	mg/L		1		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Manganese	ND	mg/L		0.005		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Nickel	ND	mg/L		0.01		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Potassium	ND	mg/L		1		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Selenium	ND	mg/L		0.001		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11120194-001
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 09:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Sodium	ND	mg/L		1	E200.8		12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Zinc	ND	mg/L		0.01	E200.8		12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Antimony	ND	mg/L		0.003	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Arsenic	ND	mg/L		0.003	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Barium	ND	mg/L		0.005	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Beryllium	ND	mg/L		0.001	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Cadmium	ND	mg/L		0.00008	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Calcium	ND	mg/L		1	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Chromium	ND	mg/L		0.001	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Cobalt	ND	mg/L		0.01	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Copper	ND	mg/L		0.001	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Iron	ND	mg/L		0.03	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Lead	ND	mg/L		0.0005	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Magnesium	ND	mg/L		1	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Manganese	ND	mg/L		0.005	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Mercury	ND	mg/L		0.00001	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Nickel	ND	mg/L		0.01	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Potassium	ND	mg/L		1	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Selenium	ND	mg/L		0.001	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Silver	ND	mg/L		0.0005	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Sodium	ND	mg/L		1	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Zinc	ND	mg/L		0.01	E200.8		12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11120194-002
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:10 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/14/11 17:00 / cmm		MAN-TECH_111214C : 19		R76758
Conductivity	279	umhos/cm		1		A2510 B	12/14/11 10:33 / cmm		COND_111214A : 1311214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/14/11 13:46 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 6			15120
Solids, Total Dissolved TDS @ 180 C	164	mg/L		10		A2540 C	12/14/11 13:38 / cmm	12/14/11 09:40 J-124 (14410200)_111214B : 7			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	150	mg/L		4		A2320 B	12/14/11 17:00 / cmm		MAN-TECH_111214C : 18		R76758
Bicarbonate as HCO ₃	180	mg/L		4		A2320 B	12/14/11 17:00 / cmm		MAN-TECH_111214C : 18		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:00 / cmm		MAN-TECH_111214C : 18		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 14:21 / zeg		IC102-H_111214A : 25		R76791
Sulfate	6	mg/L		1		E300.0	12/14/11 14:21 / zeg		IC102-H_111214A : 25		R76791
Hardness as CaCO ₃	147	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 2		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Antimony	ND	mg/L		0.003		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Barium	0.262	mg/L		0.005		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Calcium	31	mg/L		1		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Chromium	ND	mg/L		0.001		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Copper	ND	mg/L		0.001		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Iron	ND	mg/L		0.05		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Lead	ND	mg/L		0.0005		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Magnesium	17	mg/L		1		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Manganese	ND	mg/L		0.005		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Nickel	ND	mg/L		0.01		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Potassium	1	mg/L		1		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Selenium	ND	mg/L		0.001		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11120194-002
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:10 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Sodium	2	mg/L		1	E200.8		12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Zinc	ND	mg/L		0.01	E200.8		12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Antimony	ND	mg/L		0.003	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Arsenic	ND	mg/L		0.003	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Barium	0.267	mg/L		0.005	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Beryllium	ND	mg/L		0.001	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Cadmium	ND	mg/L		0.00008	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Calcium	32	mg/L		1	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Chromium	ND	mg/L		0.001	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Cobalt	ND	mg/L		0.01	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Copper	ND	mg/L		0.001	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Iron	0.03	mg/L		0.03	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Lead	ND	mg/L		0.0005	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Magnesium	17	mg/L		1	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Manganese	ND	mg/L		0.005	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Mercury	ND	mg/L		0.00001	E245.1		12/30/11 14:33 / eli-b	12/21/11 13:22		SUB-B178149 : 1	B_59446
Nickel	ND	mg/L		0.01	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Potassium	1	mg/L		1	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Selenium	ND	mg/L		0.001	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Silver	ND	mg/L		0.0005	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Sodium	3	mg/L		1	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Thallium	ND	mg/L		0.0002	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Vanadium	ND	mg/L		0.1	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Zinc	ND	mg/L		0.01	E200.8		12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11120194-003
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	6.2	s.u.		0.1		A4500-H B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 21		R76758
Conductivity	2	umhos/cm		1		A2510 B	12/14/11 10:34 / cmm		COND_111214A : 1411214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/14/11 13:46 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 7			15120
Solids, Total Dissolved TDS @ 180 C	14	mg/L		10		A2540 C	12/14/11 13:38 / cmm	12/14/11 09:40 J-124 (14410200)_111214B : 8			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 20		R76758
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 20		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 20		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 14:35 / zeg		IC102-H_111214A : 26		R76791
Sulfate	ND	mg/L		1		E300.0	12/14/11 14:35 / zeg		IC102-H_111214A : 26		R76791
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 3		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Antimony	ND	mg/L		0.003		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Barium	ND	mg/L		0.005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Calcium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Chromium	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Copper	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Iron	ND	mg/L		0.05		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Lead	ND	mg/L		0.0005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Magnesium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Manganese	ND	mg/L		0.005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Nickel	ND	mg/L		0.01		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Potassium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Selenium	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11120194-003
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Sodium	ND	mg/L		1	E200.8		12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Zinc	ND	mg/L		0.01	E200.8		12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Antimony	ND	mg/L		0.003	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Arsenic	ND	mg/L		0.003	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Barium	ND	mg/L		0.005	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Beryllium	ND	mg/L		0.001	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Cadmium	ND	mg/L		0.00008	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Calcium	ND	mg/L		1	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Chromium	ND	mg/L		0.001	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Cobalt	ND	mg/L		0.01	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Copper	ND	mg/L		0.001	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Iron	ND	mg/L		0.03	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Lead	ND	mg/L		0.0005	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Magnesium	ND	mg/L		1	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Manganese	ND	mg/L		0.005	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Mercury	ND	mg/L		0.00001	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Nickel	ND	mg/L		0.01	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Potassium	ND	mg/L		1	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Selenium	ND	mg/L		0.001	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Silver	ND	mg/L		0.0005	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Sodium	ND	mg/L		1	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Zinc	ND	mg/L		0.01	E200.8		12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11120194-004
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 14:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/14/11 17:20 / cmm		MAN-TECH_111214C : 25		R76758
Conductivity	319	umhos/cm		1		A2510 B	12/14/11 10:34 / cmm		COND_111214A : 1511214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	216	mg/L		10		A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 8			15120
Solids, Total Dissolved TDS @ 180 C	192	mg/L		10		A2540 C	12/14/11 13:39 / cmm	12/14/11 09:40 J-124 (14410200)_111214B : 9			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	170	mg/L		4		A2320 B	12/14/11 17:20 / cmm		MAN-TECH_111214C : 24		R76758
Bicarbonate as HCO ₃	210	mg/L		4		A2320 B	12/14/11 17:20 / cmm		MAN-TECH_111214C : 24		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:20 / cmm		MAN-TECH_111214C : 24		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 15:16 / zeg		IC102-H_111214A : 29		R76791
Sulfate	4	mg/L		1		E300.0	12/14/11 15:16 / zeg		IC102-H_111214A : 29		R76791
Hardness as CaCO ₃	154	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 4		R76898
METALS, DISSOLVED											
Aluminum	0.07	mg/L		0.03		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Antimony	ND	mg/L		0.003		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Barium	0.310	mg/L		0.005		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Calcium	45	mg/L		1		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Chromium	0.003	mg/L		0.001		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Copper	ND	mg/L		0.001		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Iron	0.05	mg/L		0.05		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Lead	ND	mg/L		0.0005		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Magnesium	10	mg/L		1		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Manganese	0.007	mg/L		0.005		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Nickel	ND	mg/L		0.01		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Potassium	2	mg/L		1		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Selenium	ND	mg/L		0.001		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11120194-004
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 14:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Sodium	11	mg/L		1	E200.8		12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Zinc	ND	mg/L		0.01	E200.8		12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	3.49	mg/L		0.03	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Antimony	ND	mg/L		0.003	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Arsenic	0.003	mg/L		0.003	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Barium	0.423	mg/L		0.005	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Beryllium	ND	mg/L		0.001	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Cadmium	0.00017	mg/L		0.00008	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Calcium	47	mg/L		1	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Chromium	0.010	mg/L		0.001	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Cobalt	ND	mg/L		0.01	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Copper	0.007	mg/L		0.001	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Iron	3.31	mg/L		0.03	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Lead	0.0042	mg/L		0.0005	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Magnesium	12	mg/L		1	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Manganese	0.355	mg/L		0.005	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Mercury	ND	mg/L		0.00001	E245.1	01/04/12 15:51 / eli-b	01/04/12 09:51		SUB-B178275 : 4		B_59620
Nickel	ND	mg/L		0.01	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Potassium	3	mg/L		1	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Selenium	ND	mg/L		0.001	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Silver	ND	mg/L		0.0005	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Sodium	11	mg/L		1	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Zinc	0.02	mg/L		0.01	E200.8		12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11120194-005
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:00 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/14/11 17:27 / cmm		MAN-TECH_111214C : 27		R76758
Conductivity	354	umhos/cm		1		A2510 B	12/14/11 10:35 / cmm		COND_111214A : 1611214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	68	mg/L		10		A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 9			15120
Solids, Total Dissolved TDS @ 180 C	206	mg/L		10		A2540 C	12/14/11 13:39 / cmm	12/14/11 09:40-124 (14410200)_111214B : 10			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	200	mg/L		4		A2320 B	12/14/11 17:27 / cmm		MAN-TECH_111214C : 26		R76758
Bicarbonate as HCO ₃	240	mg/L		4		A2320 B	12/14/11 17:27 / cmm		MAN-TECH_111214C : 26		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:27 / cmm		MAN-TECH_111214C : 26		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 15:29 / zeg		IC102-H_111214A : 30		R76791
Sulfate	1	mg/L		1		E300.0	12/14/11 15:29 / zeg		IC102-H_111214A : 30		R76791
Hardness as CaCO ₃	196	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 5		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Antimony	ND	mg/L		0.003		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Barium	0.833	mg/L		0.005		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Calcium	54	mg/L		1		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Chromium	ND	mg/L		0.001		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Copper	0.002	mg/L		0.001		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Iron	ND	mg/L		0.05		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Lead	ND	mg/L		0.0005		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Magnesium	15	mg/L		1		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Manganese	ND	mg/L		0.005		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Nickel	ND	mg/L		0.01		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Potassium	1	mg/L		1		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Selenium	ND	mg/L		0.001		E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11120194-005
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:00 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Sodium	4	mg/L		1	E200.8		12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
Zinc	ND	mg/L		0.01	E200.8		12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	1.44	mg/L		0.03	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Antimony	ND	mg/L		0.003	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Arsenic	ND	mg/L		0.003	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Barium	0.915	mg/L		0.005	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Beryllium	ND	mg/L		0.001	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Cadmium	ND	mg/L		0.00008	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Calcium	55	mg/L		1	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Chromium	0.004	mg/L		0.001	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Cobalt	ND	mg/L		0.01	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Copper	0.008	mg/L		0.001	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Iron	1.45	mg/L		0.03	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Lead	0.0012	mg/L		0.0005	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Magnesium	16	mg/L		1	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Manganese	0.039	mg/L		0.005	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Mercury	ND	mg/L		0.00001	E245.1		12/28/11 15:47 / eli-b	12/28/11 14:14		SUB-B178023 : 9	B_59526
Nickel	ND	mg/L		0.01	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Potassium	2	mg/L		1	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Selenium	ND	mg/L		0.001	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Silver	0.0012	mg/L		0.0005	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Sodium	4	mg/L		1	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132
Zinc	ND	mg/L		0.01	E200.8		12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11120194-006
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:05 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 29		R76758
Conductivity	349	umhos/cm		1		A2510 B	12/15/11 13:16 / cmm		COND_111214A : 1711214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	70	mg/L		10		A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42-124 (14410200)_111214A : 10			15120
Solids, Total Dissolved TDS @ 180 C	216	mg/L		10		A2540 C	12/14/11 13:39 / cmm	12/14/11 09:40-124 (14410200)_111214B : 11			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	200	mg/L		4		A2320 B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 28		R76758
Bicarbonate as HCO ₃	240	mg/L		4		A2320 B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 28		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 28		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 15:43 / zeg		IC102-H_111214A : 31		R76791
Sulfate	1	mg/L		1		E300.0	12/14/11 15:43 / zeg		IC102-H_111214A : 31		R76791
Hardness as CaCO ₃	195	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 6		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Antimony	ND	mg/L		0.003		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Barium	0.832	mg/L		0.005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Calcium	53	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Chromium	ND	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Copper	0.002	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Iron	ND	mg/L		0.05		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Lead	ND	mg/L		0.0005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Magnesium	15	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Manganese	ND	mg/L		0.005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Mercury	0.00001	mg/L		0.00001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Nickel	ND	mg/L		0.01		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Potassium	1	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Selenium	ND	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11120194-006
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:05 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Sodium	4	mg/L		1	E200.8		12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Zinc	ND	mg/L		0.01	E200.8		12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	1.47	mg/L		0.03	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Antimony	ND	mg/L		0.003	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Arsenic	ND	mg/L		0.003	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Barium	0.927	mg/L		0.005	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Beryllium	ND	mg/L		0.001	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Cadmium	ND	mg/L		0.00008	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Calcium	55	mg/L		1	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Chromium	0.004	mg/L		0.001	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Cobalt	ND	mg/L		0.01	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Copper	0.007	mg/L		0.001	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Iron	1.45	mg/L		0.03	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Lead	0.0012	mg/L		0.0005	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Magnesium	16	mg/L		1	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Manganese	0.038	mg/L		0.005	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Mercury	ND	mg/L		0.00001	E245.1		12/28/11 15:50 / eli-b	12/28/11 14:14	SUB-B178023 : 10		B_59526
Nickel	ND	mg/L		0.01	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Potassium	2	mg/L		1	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Selenium	ND	mg/L		0.001	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Silver	0.0014	mg/L		0.0005	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Sodium	4	mg/L		1	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Zinc	ND	mg/L		0.01	E200.8		12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11120194-007
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 14:20 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.		0.1		A4500-H B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 31		R76758
Conductivity	323	umhos/cm		1		A2510 B	12/14/11 10:36 / cmm		COND_111214A : 1811214A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	78	mg/L		10		A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42-124 (14410200)_111214A : 11			15120
Solids, Total Dissolved TDS @ 180 C	186	mg/L		10		A2540 C	12/14/11 13:40 / cmm	12/14/11 09:40-124 (14410200)_111214B : 12			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	180	mg/L		4		A2320 B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 30		R76758
Bicarbonate as HCO ₃	220	mg/L		4		A2320 B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 30		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 30		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 16:24 / zeg		IC102-H_111214A : 34		R76791
Sulfate	2	mg/L		1		E300.0	12/14/11 16:24 / zeg		IC102-H_111214A : 34		R76791
Hardness as CaCO ₃	166	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 7		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Antimony	ND	mg/L		0.003		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Barium	0.457	mg/L		0.005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Calcium	49	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Chromium	0.002	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Copper	ND	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Iron	ND	mg/L		0.05		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Lead	ND	mg/L		0.0005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Magnesium	11	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Manganese	0.009	mg/L		0.005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Nickel	ND	mg/L		0.01		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Potassium	4	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Selenium	ND	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11120194-007
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 14:20 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Sodium	2	mg/L		1	E200.8		12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Zinc	ND	mg/L		0.01	E200.8		12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	1.29	mg/L		0.03	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Antimony	ND	mg/L		0.003	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Arsenic	ND	mg/L		0.003	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Barium	0.510	mg/L		0.005	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Beryllium	ND	mg/L		0.001	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Cadmium	0.00010	mg/L		0.00008	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Calcium	51	mg/L		1	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Chromium	0.015	mg/L		0.001	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Cobalt	ND	mg/L		0.01	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Copper	0.003	mg/L		0.001	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Iron	1.94	mg/L		0.03	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Lead	0.0016	mg/L		0.0005	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Magnesium	11	mg/L		1	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Manganese	0.073	mg/L		0.005	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Mercury	ND	mg/L		0.00001	E245.1		12/28/11 15:53 / eli-b	12/28/11 14:14	SUB-B178023 : 11		B_59526
Nickel	ND	mg/L		0.01	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Potassium	4	mg/L		1	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Selenium	ND	mg/L		0.001	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Silver	ND	mg/L		0.0005	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Sodium	2	mg/L		1	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Thallium	ND	mg/L		0.0002	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Vanadium	ND	mg/L		0.1	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Zinc	0.01	mg/L		0.01	E200.8		12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132

Report Definitions: RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: 111214A-COND-PROBE

Run ID :Run Order: COND_111214A: 6		SampType: Initial Calibration Verification Standard				Sample ID: ICV1_111214A				Method: A2510 B		
Analysis Date:	12/14/11 09:12	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		1010	1.0	1000		101	90	110				

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: COND_111214A: 10		SampType: Sample Duplicate				Sample ID: H11120187-001ADUP				Method: A2510 B		
Analysis Date:	12/14/11 09:15	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		432	1.0				439.9			1.8	10	

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: COND_111214A: 20		SampType: Sample Duplicate				Sample ID: H11120202-001ADUP				Method: A2510 B		
Analysis Date:	12/14/11 13:13	Units:	umhos/cm			Prep Info:	Prep Date:			Prep Method:		
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		14900	1.0				14830			0.5	10	

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: 15119

Run ID :Run Order: ACCU-124 (14410200)_111214B: 1	SampType: Method Blank	Sample ID: MB-15119	Method: A2540 C
Analysis Date: 12/14/11 13:37	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	5	3	
Associated samples: H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A			
Run ID :Run Order: ACCU-124 (14410200)_111214B: 2	SampType: Laboratory Control Sample	Sample ID: LCS-15119	Method: A2540 C
Analysis Date: 12/14/11 13:37	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2050	10	2000 5 102 90 110
Associated samples: H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A			
Run ID :Run Order: ACCU-124 (14410200)_111214B: 4	SampType: Sample Duplicate	Sample ID: H11120193-001ADUP	Method: A2540 C
Analysis Date: 12/14/11 13:38	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	892	10	914 2.4 5
Associated samples: H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A			
Run ID :Run Order: ACCU-124 (14410200)_111214B: 6	SampType: Sample Matrix Spike	Sample ID: H11120194-001AMS	Method: A2540 C
Analysis Date: 12/14/11 13:38	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	2030	10	2000 8 101 80 120
Associated samples: H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A			
Run ID :Run Order: ACCU-124 (14410200)_111214B: 17	SampType: Sample Duplicate	Sample ID: H11120202-002ADUP	Method: A2540 C
Analysis Date: 12/14/11 13:41	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 C
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Dissolved TDS @ 180 C	14200	10	16320 14 5 R
Associated samples: H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: 15120

Run ID :Run Order: ACCU-124 (14410200)_111214A: 1	SampType: Method Blank	Sample ID: MB-15120	Method: A2540 D
Analysis Date: 12/14/11 13:45	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	ND	3	

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: ACCU-124 (14410200)_111214A: 2	SampType: Laboratory Control Sample	Sample ID: LCS-15120	Method: A2540 D
Analysis Date: 12/14/11 13:45	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	1800	10	2000 90 70 130

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: ACCU-124 (14410200)_111214A: 4	SampType: Sample Duplicate	Sample ID: H11120193-001ADUP	Method: A2540 D
Analysis Date: 12/14/11 13:46	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	136	10	140 2.9 5

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: ACCU-124 (14410200)_111214A: 15	SampType: Sample Duplicate	Sample ID: H11120200-001BDUP	Method: A2540 D
Analysis Date: 12/14/11 13:49	Units: mg/L	Prep Info: Prep Date: 12/14/2011	Prep Method: A2540 D
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Solids, Total Suspended TSS @ 105 C	62.0	10	60 3.3 5

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: 15132

Run ID :Run Order: ICPMS204-B_111220A: 66	SampType: Method Blank	Sample ID: MB-15132				Method: E200.8			
Analysis Date: 12/20/11 14:02	Units: mg/L	Prep Info: Prep Date: 12/15/2011				Prep Method: E200.2			
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPD Limit Qual
Aluminum	0.0008	0.0007							
Antimony	ND	4E-05							
Arsenic	8E-05	5E-05							
Barium	ND	9E-05							
Beryllium	ND	2E-05							
Cadmium	ND	2E-05							
Calcium	ND	0.04							
Chromium	8E-05	6E-05							
Cobalt	ND	3E-05							
Copper	ND	0.0004							
Iron	0.003	0.0006							
Lead	ND	2E-05							
Magnesium	ND	0.003							
Manganese	0.0001	6E-05							
Nickel	ND	0.0002							
Potassium	ND	0.07							
Selenium	ND	0.0002							
Silver	ND	6E-05							
Sodium	0.1	0.04							
Thallium	ND	2E-05							
Vanadium	0.0004	5E-05							
Zinc	0.0008	0.0003							

Associated samples: H11120194-002C; H11120194-004C; H11120194-005C; H11120194-006C; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 142	SampType: Laboratory Control Sample	Sample ID: LCS-15132				Method: E200.8			
Analysis Date: 12/20/11 22:21	Units: mg/L	Prep Info: Prep Date: 12/15/2011				Prep Method: E200.2			
Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPD Limit Qual
Aluminum	2.56	0.10	2.5	102	85	115			
Antimony	0.509	0.0050	0.5	102	85	115			
Arsenic	0.498	0.0050	0.5	100	85	115			
Barium	0.508	0.10	0.5	102	85	115			
Beryllium	0.244	0.0010	0.25	98	85	115			
Cadmium	0.256	0.0010	0.25	102	85	115			

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: 15132

Run ID :Run Order: ICPMS204-B_111220A: 142		SampType: Laboratory Control Sample			Sample ID: LCS-15132			Method: E200.8				
Analysis Date: 12/20/11 22:21		Units: mg/L			Prep Info:		Prep Date: 12/15/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		26.4	1.0	25		106	85	115				
Chromium		0.508	0.010	0.5		102	85	115				
Cobalt		0.533	0.010	0.5		107	85	115				
Copper		0.503	0.010	0.5		101	85	115				
Iron		2.50	0.030	2.5	0.001756	100	85	115				
Lead		0.532	0.010	0.5		106	85	115				
Magnesium		24.5	1.0	25		98	85	115				
Manganese		2.59	0.010	2.5		104	85	115				
Nickel		0.501	0.010	0.5		100	85	115				
Potassium		25.1	1.0	25		101	85	115				
Selenium		0.502	0.0050	0.5		100	85	115				
Silver		0.0504	0.0050	0.05		101	85	115				
Sodium		24.3	1.0	25	0.1132	97	85	115				
Thallium		0.532	0.0050	0.5		106	85	115				
Vanadium		0.505	0.10	0.5	0.0002784	101	85	115				
Zinc		0.514	0.010	0.5	0.000955	103	85	115				

Associated samples: **H11120194-002C; H11120194-004C; H11120194-005C; H11120194-006C; H11120194-007C**

Run ID :Run Order: ICPMS204-B_111220A: 146		SampType: Sample Matrix Spike			Sample ID: H11120194-002CMS3			Method: E200.8				
Analysis Date: 12/20/11 22:47		Units: mg/L			Prep Info:		Prep Date: 12/15/2011		Prep Method: E200.2			
Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		2.57	0.10	2.5	0.02157	102	70	130				
Antimony		0.518	0.0050	0.5	0.0000576	104	70	130				
Arsenic		0.498	0.0050	0.5	0.0003244	100	70	130				
Barium		0.789	0.10	0.5	0.267	104	70	130				
Beryllium		0.247	0.0010	0.25		99	70	130				
Cadmium		0.255	0.0010	0.25	0.0000172	102	70	130				
Calcium		58.6	1.0	25	32.45	105	70	130				
Chromium		0.502	0.010	0.5	0.0003396	100	70	130				
Cobalt		0.529	0.010	0.5	0.0000568	106	70	130				
Copper		0.499	0.010	0.5		100	70	130				
Iron		2.54	0.030	2.5	0.03193	100	70	130				
Lead		0.528	0.010	0.5	0.0001147	106	70	130				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: 15132

Run ID :Run Order: ICPMS204-B_111220A: 146 SampType: Sample Matrix Spike Sample ID: H11120194-002CMS3 Method: E200.8

Analysis Date: 12/20/11 22:47 Units: mg/L Prep Info: Prep Date: 12/15/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	41.1	1.0	25	16.96	96	70	130				
Manganese	2.56	0.010	2.5	0.001699	102	70	130				
Nickel	0.497	0.010	0.5	0.0002306	99	70	130				
Potassium	26.3	1.0	25	1.278	100	70	130				
Selenium	0.495	0.0050	0.5		99	70	130				
Silver	0.0506	0.0050	0.05		101	70	130				
Sodium	26.6	1.0	25	2.549	96	70	130				
Thallium	0.522	0.0050	0.5		104	70	130				
Vanadium	0.508	0.10	0.5	0.0004589	102	70	130				
Zinc	0.505	0.010	0.5	0.001771	101	70	130				

Associated samples: H11120194-002C; H11120194-004C; H11120194-005C; H11120194-006C; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 147 SampType: Sample Matrix Spike Duplicate Sample ID: H11120194-002CMS3 Method: E200.8

Analysis Date: 12/20/11 22:53 Units: mg/L Prep Info: Prep Date: 12/15/2011 Prep Method: E200.2

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.55	0.10	2.5	0.02157	101	70	130	2.574	0.8	20	
Antimony	0.522	0.0050	0.5	0.0000576	104	70	130	0.518	0.8	20	
Arsenic	0.503	0.0050	0.5	0.0003244	101	70	130	0.4984	1.0	20	
Barium	0.779	0.10	0.5	0.267	102	70	130	0.7887	1.2	20	
Beryllium	0.248	0.0010	0.25		99	70	130	0.2468	0.4	20	
Cadmium	0.258	0.0010	0.25	0.0000172	103	70	130	0.2551	1.1	20	
Calcium	58.8	1.0	25	32.45	105	70	130	58.61	0.4	20	
Chromium	0.508	0.010	0.5	0.0003396	101	70	130	0.5017	1.2	20	
Cobalt	0.527	0.010	0.5	0.0000568	105	70	130	0.5288	0.3	20	
Copper	0.502	0.010	0.5		100	70	130	0.499	0.6	20	
Iron	2.55	0.030	2.5	0.03193	101	70	130	2.539	0.4	20	
Lead	0.526	0.010	0.5	0.0001147	105	70	130	0.5277	0.4	20	
Magnesium	41.6	1.0	25	16.96	99	70	130	41.07	1.4	20	
Manganese	2.61	0.010	2.5	0.001699	104	70	130	2.559	1.8	20	
Nickel	0.501	0.010	0.5	0.0002306	100	70	130	0.4967	0.8	20	
Potassium	26.8	1.0	25	1.278	102	70	130	26.34	1.7	20	
Selenium	0.497	0.0050	0.5		99	70	130	0.4951	0.3	20	
Silver	0.0495	0.0050	0.05		99	70	130	0.05057	2.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Prepared by Helena, MT Branch

Project: UBMC Groundwater Section 35 Baseline

BatchID: 15132

Run ID :Run Order: ICPMS204-B_111220A: 147 SampType: Sample Matrix Spike Duplicate Sample ID: H11120194-002CMSD3 Method: E200.8

Analysis Date: 12/20/11 22:53 Units: mg/L Prep Info: Prep Date: 12/15/2011 Prep Method: E200.2

Analytes	22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		27.0	1.0	25	2.549	98	70	130	26.58	1.8	20	
Thallium		0.526	0.0050	0.5		105	70	130	0.5223	0.7	20	
Vanadium		0.510	0.10	0.5	0.0004589	102	70	130	0.508	0.4	20	
Zinc		0.511	0.010	0.5	0.001771	102	70	130	0.5046	1.3	20	

Associated samples: H11120194-002C; H11120194-004C; H11120194-005C; H11120194-006C; H11120194-007C

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: B_111228ZZ

Run ID :Run Order: SUB-B178023:1	SampType: Initial Calibration Verification Standard				Sample ID: QCS			Method: E245.1			
Analysis Date: 12/28/11 15:06	Units: mg/L				Prep Info:		Prep Date:		Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	9.4E-05	0.0010	0.0001		94	90	110				

Associated samples: **H11120194-005C; H11120194-006C; H11120194-007C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 25 of 59

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: B_120104ZZ

Run ID :Run Order: SUB-B178275: 1	SampType: Initial Calibration Verification Standard				Sample ID: QCS			Method: E245.1			
Analysis Date: 01/04/12 14:28	Units: mg/L				Prep Info:		Prep Date:		Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000100	0.00010	0.0001		100	90	110				

Associated samples: **H11120194-004C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 26 of 59

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: B_59446

Run ID :Run Order: SUB-B177820: 3	SampType: Method Blank	Sample ID: MB-59446	Method: E245.1
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Analysis Date: 12/22/11 12:15	Units: mg/L	Prep Info: Prep Date: 12/21/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	ND	2E-05
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Associated samples: **H11120194-002C**

Run ID :Run Order: SUB-B177820: 4	SampType: Laboratory Control Sample	Sample ID: LCS-59446	Method: E245.1
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Analysis Date: 12/22/11 12:17	Units: mg/L	Prep Info: Prep Date: 12/21/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0020	0.0010	0.002		101	85	115				
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Associated samples: **H11120194-002C**

Run ID :Run Order: SUB-B177820: 5	SampType: Sample Matrix Spike	Sample ID: B11121798-001CMS	Method: E245.1
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Analysis Date: 12/22/11 12:23	Units: mg/L	Prep Info: Prep Date: 12/21/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0020	0.0010	0.002		102	70	130				
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Associated samples: **H11120194-002C**

Run ID :Run Order: SUB-B177820: 6	SampType: Sample Matrix Spike Duplicate	Sample ID: B11121798-001CMSD	Method: E245.1
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Analysis Date: 12/22/11 12:25	Units: mg/L	Prep Info: Prep Date: 12/21/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0021	0.0010	0.002		103	70	130	0.00203	2.0	30	
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Associated samples: **H11120194-002C**

Run ID :Run Order: SUB-B177820: 12	SampType: Sample Matrix Spike	Sample ID: B11121844-002AMS	Method: E245.1
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Analysis Date: 12/22/11 12:59	Units: mg/L	Prep Info: Prep Date: 12/21/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0020	0.0010	0.002		98	70	130				
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Associated samples: **H11120194-002C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: B_59446

Run ID :Run Order: SUB-B177820: 13	SampType: Sample Matrix Spike Duplicate				Sample ID: B11121844-002AMSD				Method: E245.1		
Analysis Date: 12/22/11 13:01	Units: mg/L				Prep Info: Prep Date: 12/21/2011				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0020	0.0010	0.002		103	70	130	0.00195	5.0	30	

Associated samples: **H11120194-002C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 28 of 59

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: B_59526

Run ID :Run Order: SUB-B178023: 2	SampType: Method Blank	Sample ID: MB-59526	Method: E245.1
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Analysis Date: 12/28/11 15:28	Units: mg/L	Prep Info: Prep Date: 12/28/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	ND	1E-06
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Associated samples: **H11120194-005C; H11120194-006C; H11120194-007C**

Run ID :Run Order: SUB-B178023: 3	SampType: Laboratory Control Sample	Sample ID: LCS-59526	Method: E245.1
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Analysis Date: 12/28/11 15:32	Units: mg/L	Prep Info: Prep Date: 12/28/2011	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00011	0.0010	0.0001		111	85	115				
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Associated samples: **H11120194-005C; H11120194-006C; H11120194-007C**

Run ID :Run Order: SUB-B178023: 6	SampType: Sample Matrix Spike	Sample ID: H11120194-007C	Method: E245.1
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Analysis Date: 12/28/11 16:08	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.00010	0.0010	0.0001	0.00000293	100	70	130				
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Associated samples: **H11120194-005C; H11120194-006C; H11120194-007C**

Run ID :Run Order: SUB-B178023: 7	SampType: Sample Matrix Spike Duplicate	Sample ID: H11120194-007C	Method: E245.1
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Analysis Date: 12/28/11 16:14	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	8.7E-05	0.0010	0.0001	0.00000293	84	70	130	0.000103	30		
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Associated samples: **H11120194-005C; H11120194-006C; H11120194-007C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: B_59620

Run ID :Run Order: SUB-B178275: 2	SampType: Method Blank	Sample ID: MB-59620	Method: E245.1
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Analysis Date: 01/04/12 15:43	Units: mg/L	Prep Info: Prep Date: 1/4/2012	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	ND	1E-06
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Associated samples: **H11120194-004C**

Run ID :Run Order: SUB-B178275: 3	SampType: Laboratory Control Sample	Sample ID: LCS-59620	Method: E245.1
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Analysis Date: 01/04/12 15:48	Units: mg/L	Prep Info: Prep Date: 1/4/2012	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0021	0.00010	0.002		105	90	110				
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Associated samples: **H11120194-004C**

Run ID :Run Order: SUB-B178275: 7	SampType: Sample Matrix Spike	Sample ID: H11120194-004C	Method: E245.1
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Analysis Date: 01/04/12 15:58	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0023	0.00010	0.002	0.00000856	116	70	130				
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Associated samples: **H11120194-004C**

Run ID :Run Order: SUB-B178275: 8	SampType: Sample Matrix Spike Duplicate	Sample ID: H11120194-004C	Method: E245.1
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Analysis Date: 01/04/12 16:01	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Mercury	0.0020	0.00010	0.002	0.00000856	101	70	130	0.00232	14	30	
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Associated samples: **H11120194-004C**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76758

Run ID :Run Order: MAN-TECH_111214C: 8	SampType: Method Blank	Sample ID: MBLK	Method: A2320 B
Analysis Date: 12/14/11 16:25	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	2	2	

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 10	SampType: Laboratory Control Sample	Sample ID: LCS-11282011	Method: A2320 B
Analysis Date: 12/14/11 16:33	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	600	4.0	600 1.92 100 90 110

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 14	SampType: Sample Duplicate	Sample ID: H11120193-001ADUP	Method: A2320 B
Analysis Date: 12/14/11 16:49	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	370	4.0	372.8 1.4 10
Bicarbonate as HCO3	450	4.0	454.9 1.4 10
Carbonate as CO3	ND	4.0	10

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 22	SampType: Sample Matrix Spike	Sample ID: H11120194-003AMS	Method: A2320 B
Analysis Date: 12/14/11 17:12	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	570	4.0	600 1.9 95 80 120

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 38	SampType: Sample Duplicate	Sample ID: H11120202-003ADUP	Method: A2320 B
Analysis Date: 12/14/11 18:16	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result	PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total as CaCO3	1100	4.0	1134 0.0 10
Bicarbonate as HCO3	1400	4.0	1384 0.0 10
Carbonate as CO3	ND	4.0	10

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMG Groundwater Section 35 Baseline

BatchID: R76758

Run ID :Run Order: MAN-TECH_111214C: 38	SampType: Sample Duplicate	Sample ID: H11120202-003ADUP	Method: A2320 B
Analysis Date: 12/14/11 18:16	Units: mg/L	Prep Info: Prep Date:	Prep Method:
Analytes 3	Result PQL	SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76758

Run ID :Run Order: MAN-TECH_111214C: 2	SampType: Continuing Calibration Verification Standard	Sample ID: CCV1-2199	Method: A4500-H B
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Analysis Date: 12/14/11 16:06	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	3.92	0.10	4		98	97	103				
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 3	SampType: Continuing Calibration Verification Standard	Sample ID: CCV-2454	Method: A4500-H B
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Analysis Date: 12/14/11 16:09	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	7.05	0.10	7		101	98	102				
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 4	SampType: Continuing Calibration Verification Standard	Sample ID: CCV3-2326	Method: A4500-H B
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Analysis Date: 12/14/11 16:12	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	10.1	0.10	10		101	99	101				
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 5	SampType: Initial Calibration Verification Standard	Sample ID: ICV-2274	Method: A4500-H B
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Analysis Date: 12/14/11 16:15	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	7.04	0.10	7		101	98	102				
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: MAN-TECH_111214C: 15	SampType: Sample Duplicate	Sample ID: H11120193-001ADUP	Method: A4500-H B
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Analysis Date: 12/14/11 16:49	Units: s.u.	Prep Info:	Prep Date:	Prep Method:
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Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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pH	8.24	0.10				8.21		0.4	3		
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76758

Run ID :Run Order: MAN-TECH_111214C: 39	SampType: Sample Duplicate	Sample ID: H11120202-003ADUP	Method: A4500-H B
Analysis Date: 12/14/11 18:16	Units: s.u.	Prep Info: Prep Date:	Prep Method:
Analytes 1	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val
pH	7.95	0.10	7.94 0.1 3

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76791

Run ID :Run Order: IC102-H_111214A: 15	SampType: Initial Calibration Verification Standard	Sample ID: ICV121411-12	Method: E300.0
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Analysis Date: 12/14/11 12:05	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		102	90	110				
Sulfate	410	1.0	400		101	90	110				

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 16	SampType: Method Blank	Sample ID: ICB121411-13	Method: E300.0
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Analysis Date: 12/14/11 12:19	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.02									
Sulfate	ND	0.02									

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 17	SampType: Laboratory Fortified Blank	Sample ID: LFB121411-14	Method: E300.0
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Analysis Date: 12/14/11 12:32	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49	1.0	50		98	90	110				
Sulfate	190	1.1	200		97	90	110				

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 18	SampType: Continuing Calibration Verification Standard	Sample ID: CCV121411-15	Method: E300.0
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Analysis Date: 12/14/11 12:46	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100		102	90	110				
Sulfate	400	1.0	400		100	90	110				

Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 27	SampType: Sample Matrix Spike	Sample ID: H11120194-003AMS	Method: E300.0
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Analysis Date: 12/14/11 14:48	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49	1.0	50		98	90	110				
Sulfate	190	1.1	200		96	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76791

Run ID :Run Order: IC102-H_111214A: 27	SampType: Sample Matrix Spike	Sample ID: H11120194-003AMS	Method: E300.0
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Analysis Date: 12/14/11 14:48	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 28	SampType: Sample Matrix Spike Duplicate	Sample ID: H11120194-003AMSD	Method: E300.0
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Analysis Date: 12/14/11 15:02	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	49	1.0	50		98	90	110	49.24	0.3	20
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Sulfate	190	1.1	200		96	90	110	191.9	0.3	20
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 32	SampType: Continuing Calibration Verification Standard	Sample ID: CCV121411-30	Method: E300.0
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Analysis Date: 12/14/11 15:56	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	100	1.0	100		102	90	110			
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Sulfate	400	1.0	400		100	90	110			
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 35	SampType: Sample Matrix Spike	Sample ID: H11120194-007AMS	Method: E300.0
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Analysis Date: 12/14/11 16:37	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	49	1.0	50	0.588	98	90	110			
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Sulfate	200	1.1	200	1.566	97	90	110			
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Run ID :Run Order: IC102-H_111214A: 36	SampType: Sample Matrix Spike Duplicate	Sample ID: H11120194-007AMSD	Method: E300.0
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Analysis Date: 12/14/11 16:51	Units: mg/L	Prep Info: Prep Date:	Prep Method:
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Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	50	1.0	50	0.588	99	90	110	49.47	0.9	20
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Sulfate	200	1.1	200	1.566	97	90	110	195.2	0.1	20
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Associated samples: **H11120194-001A; H11120194-002A; H11120194-003A; H11120194-004A; H11120194-005A; H11120194-006A; H11120194-007A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 8		SampType: Initial Calibration Verification Standard			Sample ID: ICV STD			Method: E200.8				
Analysis Date: 12/19/11 14:04		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.254	0.10	0.25		102	90	110				
Antimony		0.0498	0.050	0.05		100	90	110				
Arsenic		0.0508	0.0050	0.05		102	90	110				
Barium		0.0504	0.10	0.05		101	90	110				
Beryllium		0.0251	0.0010	0.025		100	90	110				
Cadmium		0.0266	0.0010	0.025		106	90	110				
Calcium		2.56	0.50	2.5		103	90	110				
Chromium		0.0500	0.010	0.05		100	90	110				
Cobalt		0.0510	0.010	0.05		102	90	110				
Copper		0.0511	0.010	0.05		102	90	110				
Iron		0.254	0.030	0.25		102	90	110				
Lead		0.0501	0.010	0.05		100	90	110				
Magnesium		2.50	0.50	2.5		100	90	110				
Manganese		0.255	0.010	0.25		102	90	110				
Mercury		0.00199	0.0010	0.002		100	90	110				
Nickel		0.0503	0.010	0.05		101	90	110				
Potassium		2.48	0.50	2.5		99	90	110				
Selenium		0.0511	0.0050	0.05		102	90	110				
Silver		0.0241	0.0050	0.025		97	90	110				
Sodium		2.48	0.50	2.5		99	90	110				
Thallium		0.0510	0.10	0.05		102	90	110				
Vanadium		0.0498	0.10	0.05		100	90	110				
Zinc		0.0505	0.010	0.05		101	90	110				

Associated samples: **H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;**
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 9		SampType: Interference Check Sample A			Sample ID: ICSA			Method: E200.8				
Analysis Date: 12/19/11 14:11		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		42.2	0.10	40		105	70	130				
Antimony		0.000322	0.050									
Arsenic		7.10E-05	0.0050									
Barium		0.000190	0.10									
Beryllium		3.00E-06	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 9 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/19/11 14:11 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000815	0.0010									
Calcium	121	0.50	120		101	70	130				
Chromium	0.00116	0.010									
Cobalt	0.000219	0.010									
Copper	0.000389	0.010									
Iron	105	0.030	100		105	70	130				
Lead	0.000138	0.010									
Magnesium	42.3	0.50	40		106	70	130				
Manganese	0.000180	0.010									
Mercury	3.20E-05	0.0010									
Nickel	0.000647	0.010									
Potassium	41.8	0.50	40		104	70	130				
Selenium	9.30E-05	0.0050									
Silver	-0.000393	0.0050									
Sodium	105	0.50	100		105	70	130				
Thallium	5.00E-06	0.10									
Vanadium	0.000254	0.10									
Zinc	0.00116	0.010									

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/19/11 14:17 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	44.1	0.10	40		110	70	130				
Antimony	0.000319	0.050				0	0				
Arsenic	0.0114	0.0050	0.01		114	70	130				
Barium	0.000177	0.10				0	0				
Beryllium	1.70E-05	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		111	70	130				
Calcium	129	0.50	120		108	70	130				
Chromium	0.0234	0.010	0.02		117	70	130				
Cobalt	0.0221	0.010	0.02		111	70	130				
Copper	0.0220	0.010	0.02		110	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 10 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/19/11 14:17 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	109	0.030	100		109	70	130				
Lead	0.000146	0.010				0	0				
Magnesium	45.0	0.50	40		113	70	130				
Manganese	0.0216	0.010	0.02		108	70	130				
Mercury	2.70E-05	0.0010				0	0				
Nickel	0.0228	0.010	0.02		114	70	130				
Potassium	44.3	0.50	40		111	70	130				
Selenium	0.0110	0.0050	0.01		109	70	130				
Silver	0.0207	0.0050	0.02		103	70	130				
Sodium	111	0.50	100		111	70	130				
Thallium	2.00E-06	0.10				0	0				
Vanadium	0.0228	0.10	0.02		114	70	130				
Zinc	0.0120	0.010	0.01		120	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 38 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/20/11 03:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.261	0.10	0.25		104	90	110				
Antimony	0.0500	0.050	0.05		100	90	110				
Arsenic	0.0508	0.0050	0.05		102	90	110				
Barium	0.0496	0.10	0.05		99	90	110				
Beryllium	0.0256	0.0010	0.025		102	90	110				
Cadmium	0.0266	0.0010	0.025		106	90	110				
Calcium	2.55	0.50	2.5		102	90	110				
Chromium	0.0508	0.010	0.05		101	90	110				
Cobalt	0.0508	0.010	0.05		102	90	110				
Copper	0.0515	0.010	0.05		103	90	110				
Iron	0.251	0.030	0.25		100	90	110				
Lead	0.0492	0.010	0.05		98	90	110				
Magnesium	2.52	0.50	2.5		101	90	110				
Manganese	0.263	0.010	0.25		105	90	110				
Mercury	0.00195	0.0010	0.002		97	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 38 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/20/11 03:19 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0523	0.010	0.05		105	90	110				
Potassium	2.53	0.50	2.5		101	90	110				
Selenium	0.0519	0.0050	0.05		104	90	110				
Silver	0.0241	0.0050	0.025		96	90	110				
Sodium	2.54	0.50	2.5		102	90	110				
Thallium	0.0504	0.10	0.05		101	90	110				
Vanadium	0.0495	0.10	0.05		99	90	110				
Zinc	0.0542	0.010	0.05		108	90	110				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 39 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/20/11 03:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.8	0.10	40		104	70	130				
Antimony	0.000282	0.050									
Arsenic	0.000101	0.0050									
Barium	7.60E-05	0.10									
Beryllium	ND	0.0010									
Cadmium	0.000817	0.0010									
Calcium	124	0.50	120		103	70	130				
Chromium	0.00116	0.010									
Cobalt	0.000203	0.010									
Copper	0.000230	0.010									
Iron	103	0.030	100		103	70	130				
Lead	0.000136	0.010									
Magnesium	42.2	0.50	40		105	70	130				
Manganese	0.000132	0.010									
Mercury	4.30E-05	0.0010									
Nickel	0.000694	0.010									
Potassium	43.0	0.50	40		107	70	130				
Selenium	7.40E-05	0.0050									
Silver	3.60E-05	0.0050									
Sodium	104	0.50	100		104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 39 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/20/11 03:25 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	2.70E-05	0.10									
Vanadium	0.000280	0.10									
Zinc	0.00125	0.010									

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 40 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/20/11 03:32 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	44.3	0.10	40		111	70	130				
Antimony	0.000304	0.050				0	0				
Arsenic	0.0112	0.0050	0.01		112	70	130				
Barium	0.000131	0.10				0	0				
Beryllium	7.00E-06	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		111	70	130				
Calcium	129	0.50	120		107	70	130				
Chromium	0.0234	0.010	0.02		117	70	130				
Cobalt	0.0222	0.010	0.02		111	70	130				
Copper	0.0222	0.010	0.02		111	70	130				
Iron	108	0.030	100		108	70	130				
Lead	0.000138	0.010				0	0				
Magnesium	44.7	0.50	40		112	70	130				
Manganese	0.0216	0.010	0.02		108	70	130				
Mercury	2.70E-05	0.0010				0	0				
Nickel	0.0230	0.010	0.02		115	70	130				
Potassium	44.6	0.50	40		112	70	130				
Selenium	0.0112	0.0050	0.01		112	70	130				
Silver	0.0212	0.0050	0.02		106	70	130				
Sodium	110	0.50	100		110	70	130				
Thallium	1.90E-05	0.10				0	0				
Vanadium	0.0228	0.10	0.02		114	70	130				
Zinc	0.0125	0.010	0.01		125	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 51		SampType: Method Blank			Sample ID: ICB			Method: E200.8				
Analysis Date: 12/20/11 11:30		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.0006		0.0003								
Antimony		ND		7E-06								
Arsenic		ND		3E-05								
Barium		ND		3E-05								
Beryllium		ND		2E-05								
Cadmium		ND		1E-05								
Calcium		0.02		0.003								
Chromium		ND		6E-05								
Cobalt		ND		9E-06								
Copper		ND		3E-05								
Iron		ND		0.0002								
Lead		3E-05		1.0E-05								
Magnesium		0.003		0.0007								
Manganese		0.0001		1E-05								
Mercury		ND		9E-06								
Nickel		ND		5E-05								
Potassium		ND		0.010								
Selenium		ND		4E-05								
Silver		ND		3E-05								
Sodium		0.04		0.003								
Thallium		ND		7E-06								
Vanadium		ND		1E-05								
Zinc		0.0007		0.0003								

Associated samples: **H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B;**
H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 52		SampType: Laboratory Fortified Blank			Sample ID: LFB			Method: E200.8				
Analysis Date: 12/20/11 11:36		Units: mg/L			Prep Info: Prep Date:			Prep Method:				
Analytes	23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		0.0487	0.10	0.05	0.0005603	96	85	115				
Antimony		0.0500	0.050	0.05		100	85	115				
Arsenic		0.0504	0.0050	0.05		101	85	115				
Barium		0.0503	0.10	0.05		101	85	115				
Beryllium		0.0487	0.0010	0.05		97	85	115				

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	N - Analyte concentration was not sufficiently high to calculate RPD
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 52 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E200.8

Analysis Date: 12/20/11 11:36 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0491	0.0010	0.05		98	85	115				
Calcium	49.3	0.50	50	0.02409	99	85	115				
Chromium	0.0512	0.010	0.05		102	85	115				
Cobalt	0.0481	0.010	0.05		96	85	115				
Copper	0.0497	0.010	0.05		99	85	115				
Iron	5.12	0.030	5		102	85	115				
Lead	0.0493	0.010	0.05	0.0000265	99	85	115				
Magnesium	49.9	0.50	50	0.002712	100	85	115				
Manganese	0.0490	0.010	0.05	0.0001017	98	85	115				
Mercury	0.00106	0.0010	0.001		106	85	115				
Nickel	0.0507	0.010	0.05		101	85	115				
Potassium	50.0	0.50	50		100	85	115				
Selenium	0.0520	0.0050	0.05		104	85	115				
Silver	0.0179	0.0050	0.02		90	85	115				
Sodium	50.3	0.50	50	0.03959	100	85	115				
Thallium	0.0502	0.10	0.05		100	85	115				
Vanadium	0.0511	0.10	0.05		102	85	115				
Zinc	0.0513	0.010	0.05	0.0006772	101	85	115				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B; H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 54 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/20/11 12:44 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.9	0.10	40		105	70	130				
Antimony	0.000270	0.050									
Arsenic	5.10E-05	0.0050									
Barium	0.000105	0.10									
Beryllium	2.00E-06	0.0010									
Cadmium	0.000814	0.0010									
Calcium	123	0.50	120		103	70	130				
Chromium	0.00117	0.010									
Cobalt	0.000170	0.010									
Copper	0.000276	0.010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 54 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/20/11 12:44 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	103	0.030	100		103	70	130				
Lead	0.000131	0.010									
Magnesium	42.8	0.50	40		107	70	130				
Manganese	0.000202	0.010									
Mercury	2.90E-05	0.0010									
Nickel	0.000727	0.010									
Potassium	42.6	0.50	40		106	70	130				
Selenium	4.00E-05	0.0050									
Silver	2.40E-05	0.0050									
Sodium	105	0.50	100		105	70	130				
Thallium	1.90E-05	0.10									
Vanadium	0.000249	0.10									
Zinc	0.00133	0.010									

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 55 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/20/11 12:50 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	45.2	0.10	40		113	70	130				
Antimony	0.000273	0.050				0	0				
Arsenic	0.0112	0.0050	0.01		112	70	130				
Barium	9.30E-05	0.10				0	0				
Beryllium	6.00E-06	0.0010				0	0				
Cadmium	0.0111	0.0010	0.01		111	70	130				
Calcium	129	0.50	120		108	70	130				
Chromium	0.0230	0.010	0.02		115	70	130				
Cobalt	0.0215	0.010	0.02		108	70	130				
Copper	0.0218	0.010	0.02		109	70	130				
Iron	107	0.030	100		107	70	130				
Lead	0.000130	0.010				0	0				
Magnesium	44.8	0.50	40		112	70	130				
Manganese	0.0214	0.010	0.02		107	70	130				
Mercury	2.20E-05	0.0010				0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT
Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 55 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/20/11 12:50 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0223	0.010	0.02		111	70	130				
Potassium	44.9	0.50	40		112	70	130				
Selenium	0.0108	0.0050	0.01		108	70	130				
Silver	0.0206	0.0050	0.02		103	70	130				
Sodium	111	0.50	100		111	70	130				
Thallium	1.70E-05	0.10				0	0				
Vanadium	0.0223	0.10	0.02		111	70	130				
Zinc	0.0122	0.010	0.01		122	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 118 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/20/11 19:44 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.258	0.10	0.25		103	90	110				
Antimony	0.0506	0.050	0.05		101	90	110				
Arsenic	0.0503	0.0050	0.05		101	90	110				
Barium	0.0510	0.10	0.05		102	90	110				
Beryllium	0.0251	0.0010	0.025		100	90	110				
Cadmium	0.0263	0.0010	0.025		105	90	110				
Calcium	2.58	0.50	2.5		103	90	110				
Chromium	0.0508	0.010	0.05		102	90	110				
Cobalt	0.0514	0.010	0.05		103	90	110				
Copper	0.0517	0.010	0.05		103	90	110				
Iron	0.251	0.030	0.25		101	90	110				
Lead	0.0499	0.010	0.05		100	90	110				
Magnesium	2.49	0.50	2.5		100	90	110				
Manganese	0.274	0.010	0.25		109	90	110				
Mercury	0.00192	0.0010	0.002		96	90	110				
Nickel	0.0510	0.010	0.05		102	90	110				
Potassium	2.47	0.50	2.5		99	90	110				
Selenium	0.0506	0.0050	0.05		101	90	110				
Silver	0.0245	0.0050	0.025		98	90	110				
Sodium	2.55	0.50	2.5		102	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
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Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 118 SampType: Initial Calibration Verification Standard Sample ID: ICV STD Method: E200.8

Analysis Date: 12/20/11 19:44 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0510	0.10	0.05		102	90	110				
Vanadium	0.0497	0.10	0.05		99	90	110				
Zinc	0.0527	0.010	0.05		105	90	110				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 119 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/20/11 19:50 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.9	0.10	40		105	70	130				
Antimony	0.000298	0.050									
Arsenic	8.10E-05	0.0050									
Barium	0.000204	0.10									
Beryllium	2.00E-06	0.0010									
Cadmium	0.000750	0.0010									
Calcium	123	0.50	120		102	70	130				
Chromium	0.00118	0.010									
Cobalt	0.000202	0.010									
Copper	0.000207	0.010									
Iron	103	0.030	100		103	70	130				
Lead	0.000137	0.010									
Magnesium	41.4	0.50	40		103	70	130				
Manganese	0.000168	0.010									
Mercury	4.50E-05	0.0010									
Nickel	0.000654	0.010									
Potassium	41.4	0.50	40		103	70	130				
Selenium	6.90E-05	0.0050									
Silver	5.70E-05	0.0050									
Sodium	101	0.50	100		101	70	130				
Thallium	1.30E-05	0.10									
Vanadium	0.000265	0.10									
Zinc	0.00124	0.010									

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 120 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/20/11 19:57 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	43.6	0.10	40		109	70	130				
Antimony	0.000301	0.050				0	0				
Arsenic	0.0111	0.0050	0.01		111	70	130				
Barium	0.000146	0.10				0	0				
Beryllium	5.00E-06	0.0010				0	0				
Cadmium	0.0110	0.0010	0.01		109	70	130				
Calcium	132	0.50	120		110	70	130				
Chromium	0.0234	0.010	0.02		117	70	130				
Cobalt	0.0224	0.010	0.02		112	70	130				
Copper	0.0220	0.010	0.02		110	70	130				
Iron	109	0.030	100		109	70	130				
Lead	0.000142	0.010				0	0				
Magnesium	43.5	0.50	40		109	70	130				
Manganese	0.0222	0.010	0.02		111	70	130				
Mercury	2.30E-05	0.0010				0	0				
Nickel	0.0226	0.010	0.02		113	70	130				
Potassium	44.3	0.50	40		111	70	130				
Selenium	0.0107	0.0050	0.01		107	70	130				
Silver	0.0210	0.0050	0.02		105	70	130				
Sodium	108	0.50	100		108	70	130				
Thallium	9.00E-06	0.10				0	0				
Vanadium	0.0228	0.10	0.02		114	70	130				
Zinc	0.0119	0.010	0.01		119	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 127 SampType: Sample Matrix Spike Sample ID: H11120194-001BMS Method: E200.8

Analysis Date: 12/20/11 20:43 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0475	0.10	0.05		95	70	130				
Antimony	0.0488	0.0050	0.05		98	70	130				
Arsenic	0.0490	0.0050	0.05	0.0000339	98	70	130				
Barium	0.0488	0.10	0.05		98	70	130				
Beryllium	0.0460	0.0010	0.05		92	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 127 SampType: Sample Matrix Spike Sample ID: H11120194-001BMS Method: E200.8

Analysis Date: 12/20/11 20:43 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0470	0.0010	0.05		94	70	130				
Calcium	48.0	1.0	50	0.01158	96	70	130				
Chromium	0.0496	0.010	0.05		99	70	130				
Cobalt	0.0481	0.010	0.05	0.000017	96	70	130				
Copper	0.0486	0.010	0.05		97	70	130				
Iron	4.79	0.030	5	0.0005451	96	70	130				
Lead	0.0487	0.010	0.05		97	70	130				
Magnesium	46.9	1.0	50		94	70	130				
Manganese	0.0488	0.010	0.05		98	70	130				
Mercury	0.000990	0.0010	0.001		99	70	130				
Nickel	0.0484	0.010	0.05		97	70	130				
Potassium	48.2	1.0	50	0.01332	96	70	130				
Selenium	0.0484	0.0050	0.05		97	70	130				
Silver	0.0189	0.0050	0.02		95	70	130				
Sodium	47.2	1.0	50	0.009643	94	70	130				
Thallium	0.0486	0.0050	0.05		97	70	130				
Vanadium	0.0497	0.10	0.05		99	70	130				
Zinc	0.0507	0.010	0.05	0.0008699	100	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B;
H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 128 SampType: Sample Matrix Spike Duplicate Sample ID: H11120194-001BMSD Method: E200.8

Analysis Date: 12/20/11 20:49 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0484	0.10	0.05		97	70	130	0.04753		20	
Antimony	0.0487	0.0050	0.05		97	70	130	0.04875	0.1	20	
Arsenic	0.0496	0.0050	0.05	0.0000339	99	70	130	0.04902	1.3	20	
Barium	0.0491	0.10	0.05		98	70	130	0.04884		20	
Beryllium	0.0473	0.0010	0.05		95	70	130	0.04604	2.7	20	
Cadmium	0.0470	0.0010	0.05		94	70	130	0.04696	0.0	20	
Calcium	48.4	1.0	50	0.01158	97	70	130	47.96	1.0	20	
Chromium	0.0497	0.010	0.05		99	70	130	0.04958	0.3	20	
Cobalt	0.0491	0.010	0.05	0.000017	98	70	130	0.04809	2.2	20	
Copper	0.0492	0.010	0.05		98	70	130	0.04858	1.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 128 SampType: Sample Matrix Spike Duplicate Sample ID: H11120194-001BMSD Method: E200.8

Analysis Date: 12/20/11 20:49

Units: mg/L

Prep Info:

Prep Date:

Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.01	0.030	5	0.0005451	100	70	130	4.793	4.4	20	
Lead	0.0484	0.010	0.05		97	70	130	0.04871	0.5	20	
Magnesium	47.0	1.0	50		94	70	130	46.91	0.1	20	
Manganese	0.0503	0.010	0.05		101	70	130	0.04885	2.9	20	
Mercury	0.000978	0.0010	0.001		98	70	130	0.00099		20	
Nickel	0.0493	0.010	0.05		99	70	130	0.0484	1.8	20	
Potassium	48.3	1.0	50	0.01332	97	70	130	48.18	0.3	20	
Selenium	0.0496	0.0050	0.05		99	70	130	0.0484	2.5	20	
Silver	0.0186	0.0050	0.02		93	70	130	0.01895	1.7	20	
Sodium	47.0	1.0	50	0.009643	94	70	130	47.24	0.5	20	
Thallium	0.0488	0.0050	0.05		98	70	130	0.04865	0.3	20	
Vanadium	0.0504	0.10	0.05		101	70	130	0.04967		20	
Zinc	0.0502	0.010	0.05	0.0008699	99	70	130	0.05066	0.9	20	

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B;
H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 173 SampType: Sample Matrix Spike Sample ID: H11120194-006BMS Method: E200.8

Analysis Date: 12/21/11 01:42

Units: mg/L

Prep Info:

Prep Date:

Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0524	0.10	0.05	0.004467	96	70	130				
Antimony	0.0484	0.0050	0.05	0.000031	97	70	130				
Arsenic	0.0506	0.0050	0.05	0.001104	99	70	130				
Barium	0.873	0.10	0.05	0.8318		70	130				A
Beryllium	0.0467	0.0010	0.05		93	70	130				
Cadmium	0.0470	0.0010	0.05	0.0000233	94	70	130				
Calcium	101	1.0	50	53.4	94	70	130				
Chromium	0.0501	0.010	0.05	0.0001572	100	70	130				
Cobalt	0.0496	0.010	0.05	0.0006452	98	70	130				
Copper	0.0496	0.010	0.05	0.001704	96	70	130				
Iron	4.91	0.030	5	0.007341	98	70	130				
Lead	0.0488	0.010	0.05	0.0000244	98	70	130				
Magnesium	60.8	1.0	50	14.96	92	70	130				
Manganese	0.0508	0.010	0.05	0.001923	98	70	130				
Mercury	0.000980	0.0010	0.001	0.0000135	97	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 49 of 59

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT
Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 173 SampType: Sample Matrix Spike Sample ID: H11120194-006BMS Method: E200.8

Analysis Date: 12/21/11 01:42 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0485	0.010	0.05	0.0005695	96	70	130				
Potassium	50.4	1.0	50	1.396	98	70	130				
Selenium	0.0493	0.0050	0.05		99	70	130				
Silver	0.0194	0.0050	0.02		97	70	130				
Sodium	50.4	1.0	50	4.039	93	70	130				
Thallium	0.0489	0.0050	0.05		98	70	130				
Vanadium	0.0506	0.10	0.05	0.0005585	100	70	130				
Zinc	0.0530	0.010	0.05	0.004201	98	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B;
H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 178 SampType: Sample Matrix Spike Duplicate Sample ID: H11120194-006BMSD Method: E200.8

Analysis Date: 12/21/11 02:15 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0515	0.10	0.05	0.004467	94	70	130	0.05243		20	
Antimony	0.0487	0.0050	0.05	0.000031	97	70	130	0.04839	0.7	20	
Arsenic	0.0509	0.0050	0.05	0.001104	100	70	130	0.05062	0.6	20	
Barium	0.870	0.10	0.05	0.8318		70	130	0.8729	0.3	20	A
Beryllium	0.0464	0.0010	0.05		93	70	130	0.04673	0.8	20	
Cadmium	0.0468	0.0010	0.05	0.0000233	93	70	130	0.04695	0.4	20	
Calcium	100	1.0	50	53.4	93	70	130	100.6	0.6	20	
Chromium	0.0502	0.010	0.05	0.0001572	100	70	130	0.05013	0.1	20	
Cobalt	0.0485	0.010	0.05	0.0006452	96	70	130	0.04958	2.2	20	
Copper	0.0504	0.010	0.05	0.001704	97	70	130	0.04957	1.6	20	
Iron	4.88	0.030	5	0.007341	97	70	130	4.914	0.7	20	
Lead	0.0493	0.010	0.05	0.0000244	98	70	130	0.04885	0.8	20	
Magnesium	61.2	1.0	50	14.96	93	70	130	60.78	0.8	20	
Manganese	0.0501	0.010	0.05	0.001923	96	70	130	0.05075	1.3	20	
Mercury	0.000950	0.0010	0.001	0.0000135	94	70	130	0.00098		20	
Nickel	0.0493	0.010	0.05	0.0005695	98	70	130	0.04853	1.6	20	
Potassium	50.4	1.0	50	1.396	98	70	130	50.43	0.1	20	
Selenium	0.0495	0.0050	0.05		99	70	130	0.04926	0.5	20	
Silver	0.0192	0.0050	0.02		96	70	130	0.01935	1.0	20	
Sodium	50.7	1.0	50	4.039	93	70	130	50.44	0.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 50 of 59

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 178 SampType: Sample Matrix Spike Duplicate Sample ID: H11120194-006BMSD Method: E200.8

Analysis Date: 12/21/11 02:15 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	0.0500	0.0050	0.05		100	70	130	0.04886	2.3	20	
Vanadium	0.0508	0.10	0.05	0.0005585	100	70	130	0.05065		20	
Zinc	0.0528	0.010	0.05	0.004201	97	70	130	0.05302	0.4	20	

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B; H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 192 SampType: Sample Matrix Spike Sample ID: H11120198-001AMS Method: E200.8

Analysis Date: 12/21/11 03:46 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0504	0.10	0.05	0.003541	94	70	130				
Antimony	0.0488	0.0050	0.05		98	70	130				
Arsenic	0.0506	0.0050	0.05	0.001035	99	70	130				
Barium	0.0772	0.10	0.05	0.02856	97	70	130				
Beryllium	0.0457	0.0010	0.05		91	70	130				
Cadmium	0.0462	0.0010	0.05		92	70	130				
Calcium	127	1.0	50	82	89	70	130				
Chromium	0.0494	0.010	0.05	0.0002051	98	70	130				
Cobalt	0.0481	0.010	0.05	0.0001256	96	70	130				
Copper	0.0489	0.010	0.05	0.0006428	97	70	130				
Iron	4.84	0.030	5	0.001779	97	70	130				
Lead	0.0491	0.010	0.05	0.0000467	98	70	130				
Magnesium	72.8	1.0	50	27.75	90	70	130				
Manganese	0.0490	0.010	0.05	0.0001079	98	70	130				
Mercury	0.000940	0.0010	0.001		94	70	130				
Nickel	0.0481	0.010	0.05	0.0001905	96	70	130				
Potassium	50.7	1.0	50	2.253	97	70	130				
Selenium	0.0488	0.0050	0.05	0.001179	95	70	130				
Silver	0.0190	0.0050	0.02		95	70	130				
Sodium	57.1	1.0	50	10.88	92	70	130				
Thallium	0.0488	0.0050	0.05	0.000051	98	70	130				
Vanadium	0.0505	0.10	0.05	0.0004894	100	70	130				
Zinc	0.0542	0.010	0.05	0.004359	100	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B; H11120194-007B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount
Page 51 of 59

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 193 SampType: Sample Matrix Spike Duplicate Sample ID: H11120198-001AMSD Method: E200.8

Analysis Date: 12/21/11 03:52 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0511	0.10	0.05	0.003541	95	70	130	0.05043		20	
Antimony	0.0483	0.0050	0.05		97	70	130	0.04883	1.0	20	
Arsenic	0.0512	0.0050	0.05	0.001035	100	70	130	0.05063	1.0	20	
Barium	0.0778	0.10	0.05	0.02856	99	70	130	0.07718		20	
Beryllium	0.0454	0.0010	0.05		91	70	130	0.04566	0.7	20	
Cadmium	0.0466	0.0010	0.05		93	70	130	0.04624	0.8	20	
Calcium	129	1.0	50	82	94	70	130	126.6	1.8	20	
Chromium	0.0493	0.010	0.05	0.0002051	98	70	130	0.04944	0.3	20	
Cobalt	0.0491	0.010	0.05	0.0001256	98	70	130	0.04814	2.0	20	
Copper	0.0489	0.010	0.05	0.0006428	97	70	130	0.04892	0.1	20	
Iron	4.84	0.030	5	0.001779	97	70	130	4.84	0.1	20	
Lead	0.0494	0.010	0.05	0.0000467	99	70	130	0.04914	0.4	20	
Magnesium	73.4	1.0	50	27.75	91	70	130	72.85	0.8	20	
Manganese	0.0490	0.010	0.05	0.0001079	98	70	130	0.04903	0.0	20	
Mercury	0.000952	0.0010	0.001		95	70	130	0.00094		20	
Nickel	0.0480	0.010	0.05	0.0001905	96	70	130	0.04811	0.3	20	
Potassium	51.2	1.0	50	2.253	98	70	130	50.73	1.0	20	
Selenium	0.0498	0.0050	0.05	0.001179	97	70	130	0.04875	2.1	20	
Silver	0.0183	0.0050	0.02		92	70	130	0.019	3.8	20	
Sodium	57.6	1.0	50	10.88	93	70	130	57.1	0.9	20	
Thallium	0.0501	0.0050	0.05	0.000051	100	70	130	0.04885	2.6	20	
Vanadium	0.0504	0.10	0.05	0.0004894	100	70	130	0.05051		20	
Zinc	0.0513	0.010	0.05	0.004359	94	70	130	0.05421	5.6	20	

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-005B; H11120194-006B;
H11120194-007B

Run ID :Run Order: ICPMS204-B_111220A: 224 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/21/11 07:14 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes 23	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.1	0.10	40		98	70	130				
Antimony	0.000258	0.050									
Arsenic	6.70E-05	0.0050									
Barium	0.000130	0.10									
Beryllium	1.60E-05	0.0010									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 224 SampType: Interference Check Sample A Sample ID: ICSA Method: E200.8

Analysis Date: 12/21/11 07:14 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000789	0.0010									
Calcium	112	0.50	120		93	70	130				
Chromium	0.00104	0.010									
Cobalt	0.000204	0.010									
Copper	0.000607	0.010									
Iron	103	0.030	100		103	70	130				
Lead	0.000125	0.010									
Magnesium	38.8	0.50	40		97	70	130				
Manganese	7.00E-05	0.010									
Mercury	9.00E-06	0.0010									
Nickel	0.000733	0.010									
Potassium	37.4	0.50	40		94	70	130				
Selenium	2.50E-05	0.0050									
Silver	1.90E-05	0.0050									
Sodium	95.3	0.50	100		95	70	130				
Thallium	6.00E-06	0.10									
Vanadium	0.000265	0.10									
Zinc	0.00112	0.010									

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Run ID :Run Order: ICPMS204-B_111220A: 225 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/21/11 07:20 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.5	0.10	40		104	70	130				
Antimony	0.000273	0.050				0	0				
Arsenic	0.0111	0.0050	0.01		111	70	130				
Barium	0.000183	0.10				0	0				
Beryllium	8.00E-06	0.0010				0	0				
Cadmium	0.0107	0.0010	0.01		107	70	130				
Calcium	121	0.50	120		101	70	130				
Chromium	0.0221	0.010	0.02		110	70	130				
Cobalt	0.0217	0.010	0.02		109	70	130				
Copper	0.0219	0.010	0.02		110	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount

Client: MT DEQ-Site Response
Work Order: H11120194

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

Date: 23-Jan-12

Project: UBMC Groundwater Section 35 Baseline

BatchID: R76896

Run ID :Run Order: ICPMS204-B_111220A: 225 SampType: Interference Check Sample AB Sample ID: ICSAB Method: E200.8

Analysis Date: 12/21/11 07:20

Units: mg/L

Prep Info:

Prep Date:

Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	106	0.030	100		105	70	130				
Lead	0.000123	0.010				0	0				
Magnesium	41.1	0.50	40		103	70	130				
Manganese	0.0207	0.010	0.02		103	70	130				
Mercury	5.00E-06	0.0010				0	0				
Nickel	0.0224	0.010	0.02		112	70	130				
Potassium	40.3	0.50	40		101	70	130				
Selenium	0.0105	0.0050	0.01		105	70	130				
Silver	0.0206	0.0050	0.02		103	70	130				
Sodium	101	0.50	100		101	70	130				
Thallium	4.00E-06	0.10				0	0				
Vanadium	0.0220	0.10	0.02		110	70	130				
Zinc	0.0120	0.010	0.01		120	70	130				

Associated samples: H11120194-001B; H11120194-001C; H11120194-002B; H11120194-002C; H11120194-003B; H11120194-003C; H11120194-004B; H11120194-004C;
H11120194-005B; H11120194-005C; H11120194-006B; H11120194-006C; H11120194-007B; H11120194-007C

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Workorder Receipt Checklist



MT DEQ-Site Response

H11120194

Login completed by: Tracy L. Lorash

Date Received: 12/14/2011

Reviewed by: BL2000\sdull

Received by: abb

Reviewed Date: 12/20/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	0.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

Sample ID on COC is S35MW08 - bottles have S35MW8. Logged in with ID from COC. TI 12/14/11.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:

MDEQ

Report Mail Address:

Quite H-CAS

Invoice Address:

Project Name, PWS, Permit Etc.
UBMC Groundwater(Baseline)
Contact Name: **Shelliie Haaland** Phone/Fax: **341-5033** Email: **Shelliie.Haaland@mt.gov**

Invoice Contact & Phone:

Purchase Order:

Quote/Bottle Order:

Sample Origin	State:	EPA/State Compliance:
MT		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sampler: (Please Print) Karen Dreesback		
Jackie Januski		

Special Report/Formats:

- DW EDD/EDT(Electronic Data)
 POTWWTP Format: _____
 State: **LEVEL IV** NELAC
 Other: _____

Number of Containers: A W S V B O DW
 Air Water Soils/Solids
 Vegetation Bioassay Other
 DW - Drinking Water

UBMC Groundwater

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

R U S H Standard Turnaround (TAT)

Comments: Please **Please** **Call** **results** **addressbook@** **Protagine.com**

On Its: **O.D.** °C

On Its: **Y** N

Custody Seal **Y** N

On Bottle **Y** N

On Cooler **Y** N

Intact **Y** N

Signature **Y** N

Match

H11120194

Shipped by:
Wind **del**

Cooler ID(s):

Receipt Temp: **4**

Date/Time: **12/12/2011 14:20**

Signature: **Hill**

Page 50 of 59

CUSTODY RECORD			LABORATORY USE ONLY		
Released by Wesley, Sue Date/Time: 12/14/11 12:50 Signature: S. Haaland			Received by (print): Amber Bluhm Date/Time: 12/14/11 12:50 Signature: A. Bluhm		
Retained/Released by (print): Wesley, Sue Date/Time: 12/14/11 12:50 Signature: S. Haaland			Received by (print): Amber Bluhm Date/Time: 12/14/11 12:50 Signature: A. Bluhm		
MUST be Signed			Sample Disposal: Return to Client: Lab Disposal:		

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Quotation for Analytical Services # H645

Company:	MT DEQ-Site Response	Submitted By:	
Contact:	Shellie Haaland	Project:	UBMC
Address:	PO Box 200901	TAT:	10 Working days
	Helena, MT 59620-0901	QC Level:	STD
Phone:	(406) 841-5033	Quote Date:	30-Apr-11
	Fax:		Expires: 31-Dec-12

Matrix	Test Name	Test	Remarks	# Samp	Unit Price	Test Total
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Schedule: UBMC Surface Water Section 35 Baseline

Schedule Sample Price: \$425.00
Schedule Total: \$425.00

Schedule: UBMC Ground Water Section 35 Baseline

Aqueous	Acidity, Total as CaCO ₃	A2310 B	Only Analyzed if pH < 4.5	1	\$15.00	1	\$15.00
	Alkalinity	A2320 B		1	\$10.00	1	\$10.00
	Hardness as CaCO ₃	A2340 B		1	\$0.00	1	\$0.00
	Conductivity	A2510 B		1	\$10.00	1	\$10.00
	Solids, Total Dissolved	A2540 C		1	\$15.00	1	\$15.00
	Solids, Total Suspended	A2540 D		1	\$15.00	1	\$15.00
	pH	A4500-H B		1	\$10.00	1	\$10.00
	Metals Digestion by EPA 200.2	E200.2		1	\$15.00	1	\$15.00
	Metals by ICP/ICPMS, Dissolved	E200.7_8		1	\$200.00	1	\$200.00
	Metals by ICP/ICPMS, Tot. Rec.	E200.7_8		1	\$200.00	1	\$200.00
	Mercury, Total	E245.7	Only used if can not be achieved by other methods.	1	\$50.00	1	\$50.00
	Anions by Ion Chromatography	E300.0	Chloride and Sulfate	1	\$20.00	1	\$20.00

Schedule Sample Price: \$560.00
Schedule Total: \$560.00

Schedule: Sediment

Metals by ICP/ICPMS, Total	E6010.20	1	\$80.00	1	\$80.00
Digestion, Total Metals	SW3050 B	1	\$25.00	1	\$25.00

Schedule Sample Price: \$105.00
Schedule Total: \$105.00

Quote Comments: Shipping Labels provided at 12.00 a cooler by UPS or FED EX.

Quote Sub Total:	\$1,680.00
Misc:	\$0.00
Discount:	30.00%
WO Adjustment:	\$0.00
QUOTE TOTAL:	\$1,176.00

General Comments: Price per sampling event. Sampling to be completed by Portage Inc. 1065 N Ewing Helena, MT 406-457-0056

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents .

* Methods and/or parameters included in the indicated test group.

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<u>UBMC Ground Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.05	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
Metals by ICP/ICPMS, Tot. Rec.	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L



**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
SECTION 35, LEWIS & CLARK COUNTY, MONTANA**

Identifier:	RPT-1028
Revision:	Final (0)
Page:	B-1

Appendix B

Data Validation Reports



**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
SECTION 35, LEWIS & CLARK COUNTY, MONTANA**

Identifier:	RPT-1028
Revision:	Final (0)
Page:	B-2

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UBMC Surface Water Section 35 Baseline

SDG#: H11050028

Number of Samples: 5

Sample Matrix: Water

Applicable Analytes: pH, Conductivity, Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Anions (Chloride and Sulfate), Alkalinity (Total Alkalinity, Bicarbonate, and Carbonate), Hardness, Metals Dissolved: (Al, Ca, Mg, K, and Na), and Total Recoverable Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn)

Reporting Tier: 3

Applicable TOS#: N/A

Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator: *Audrey Brinley* **Date Completed:** 06/03/11

Portage Review: _____ **Date Completed:** 06/03/11

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Surface Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Surface Water Section 35 Baseline water sample results were received by Portage, Inc. in May 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), and total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn) results. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 245.1, and 200.8. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Surface Water Section 35 Baseline Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35 SW06	H11050028-001	Water	pH, Conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, & carbonate) chloride, sulfate, hardness, dissolved metals, and total recoverable metals	04/29/11	05/02/11
S35 SW01	H11050028-002	Water	pH, Conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, & carbonate) chloride, sulfate, hardness, dissolved metals, and total recoverable metals	04/29/11	05/02/11
S35 SW02	H11050028-003	Water	pH, Conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, & carbonate) chloride, sulfate, hardness, dissolved metals, and total recoverable metals	04/29/11	05/02/11

Cross-Reference for Cross-Reference for UBMC Surface Water Section 35 Baseline Water Samples Cont...					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35 SW04	H11050028-004	Water	pH, Conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, & carbonate) chloride, sulfate, hardness, dissolved metals, and total recoverable metals	04/29/11	05/02/11
SW SW03	H11050028-005	Water	pH, Conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, & carbonate) chloride, sulfate, hardness, dissolved metals, and total recoverable metals	04/29/11	05/02/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 04/29/11. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 05/03/11, chloride and sulfate results were analyzed on 05/04/11, hardness results were analyzed on 05/05/11, dissolved metals results were analyzed on 05/04/11 and 05/05/11, and total recoverable metals were analyzed on 05/04/11, 05/09/11, and 05/10/11. The analyses occurred within the 28-day holding time for conductivity, sulfate, chloride, and mercury, the-7 day holding time for TSS and TDS, the 14-day holding time for alkalinity, and within the 180-day holding time for hardness, dissolved metals, and total recoverable metals.

The pH samples were collected on 04/29/11, received on 05/02/11, and analyzed on 05/03/11 approximately 3-days after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a “J-“ validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved and the laboratory made every effort to analyze the samples in a timely fashion as they were received outside of the 24 hour holding time.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB for total alkalinity exhibited a positive detection between the MDL and RL. No qualification is warranted as the reported results were greater than the RL and greater than five times the PB concentration.

The PB (run ID ICPMS204-B_110504A) for total recoverable metals affecting all target analytes, except all Hg and Mn in S35 SW06, S35 SW01, and S35 SW02, exhibited positive detections between the MDL and RL for aluminum, arsenic, barium, magnesium, sodium, vanadium, and zinc. All aluminum, arsenic, barium, iron, magnesium, sodium, vanadium, and zinc results warrant no qualification as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration prescribed by the USEPA Functional Guidelines and the analytical methods.

The PB (run ID ICPMS204-B_110509A) for total recoverable metals, affecting Mn only in S35 SW06, S35 SW01, and S35 SW02, exhibited positive detections between the MDL and RL for aluminum, antimony, chromium, copper, iron, lead, manganese, sodium, vanadium, and zinc. It was noted that selenium exhibited a positive detection greater than the RL. Manganese warrants no qualification as the reported results were greater than the RL and greater than five times the method blank as prescribed by the USEPA Functional Guidelines and the analytical methods. The remaining analytes present in the PB warrant no qualification as they were assessed using the PB (ICPMS204B_110504A) and were either non-detect or greater than the RL and five times the PB concentration as prescribed by the USEPA Functional Guidelines and the analytical methods.

The PB for dissolved metals exhibited a positive detection for sodium between the MDL and RL. Sodium warrants no qualification as all sample results were greater than the RL and greater than five times the PB concentration as prescribed by the USEPA Functional Guidelines and the analytical methods..

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

The ICS result for cobalt (124%) was outside of the 80-120% acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods. Cobalt warrants no qualification due to high ICS recovery as all sample results were non-detect prescribed by the USEPA Functional Guidelines and the analytical methods.

The remaining ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The MS (125%) and MSD (131%) for sulfate was outside of the 90-110% acceptance criteria per USEPA Method 300.0. All sulfate results have been qualified with a “J+” validation flag due to sample results greater than the MDL and high MS/MSD recoveries.

The remaining MS/MSD recovery and all MSD RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were five (5) water field samples included in SDG# H11050028. Five (5) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

All sulfate results have been qualified with a “J+” validation flag to denote the reported result is an estimate with a high bias due to high MS/MSD recoveries.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 SW06
Lab ID: H110500-28-001
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 08:52
Date Received: 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	Rund	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.	-	0.1	A4500-H B *	05/03/11 18:40 / zeg					R70695
Conductivity	93	umhos/cm	-	1	A2510 B *	05/03/11 11:42 / cmm					COND_110503A : 53
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D *	05/03/11 13:43 / cmm	05/03/11 13:16:124 (14410200)_110503A : 27				R70695
Solids, Total Dissolved TDS @ 180 C	42	mg/L		10	A2540 C *	05/03/11 14:03 / cmm	05/03/11 13:17:124 (14410200)_110503B : 23				12064
INORGANICS											
Alkalinity, Total as CaCO ₃	49	mg/L		4	A2320 B *	05/03/11 18:40 / zeg					MAN-TECH_110503A : 52
Bicarbonate as HCO ₃	59	mg/L		4	A2320 B *	05/03/11 18:40 / zeg					MAN-TECH_110503A : 52
Carbonate as CO ₃	ND	mg/L		4	A2320 B *	05/03/11 18:40 / zeg					MAN-TECH_110503A : 52
Chloride	ND	mg/L	-	1	E300.0 *	05/04/11 00:50 / zeg					IC101-H_110503B : 39
Sulfate	3	mg/L	-	1	E300.0 *	05/04/11 00:50 / zeg					IC101-H_110503B : 39
Hardness as CaCO ₃	48	mg/L		1	A2340 B *	05/05/11 13:10 / std					R70750
METALS, DISSOLVED											
Aluminum	0.18	mg/L		0.03	E200.8	05/04/11 23:10 / dck					ICPMS204-B_110504A : 134
Calcium	11	mg/L		1	E200.8	05/04/11 23:10 / dck					ICPMS204-B_110504A : 134
Magnesium	5	mg/L		1	E200.8	05/04/11 23:10 / dck					ICPMS204-B_110504A : 134
Potassium	ND	mg/L		1	E200.8	05/04/11 23:10 / dck					ICPMS204-B_110504A : 134
Sodium	2	mg/L		1	E200.8	05/04/11 23:10 / dck					WATERCALC_110505A : 13
METALS, TOTAL RECOVERABLE											
Aluminum	0.25	mg/L		0.03	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Antimony	ND	mg/L		0.003	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Arsenic	ND	mg/L		0.003	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Barium	0.082	mg/L		0.005	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Beryllium	ND	mg/L		0.001	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Cadmium	ND	mg/L		0.00008	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Calcium	11	mg/L		1	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Chromium	ND	mg/L		0.001	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Cobalt	ND	mg/L		0.01	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Copper	0.003	mg/L		0.001	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135
Iron	0.19	mg/L		0.03	E200.8	05/04/11 23:15 / dck	05/03/11 11:35				ICPMS204-B_110504A : 135

Report RL - Analyte reporting limit.
Definitions: ND - Not detected at the reporting limit.

JM 013111

MCL - Maximum contaminant level.

Client: MT DEQ-Site Response
 Client Sample ID S35 SW06
 Lab ID: H11050028-001
 Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
 Collection Date: 04/29/11 08:52 Date Received: 05/02/11
 Report Date: 05/12/11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Magnesium	5	mg/L	1		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Manganese	0.007	mg/L	0.005		E200.8		05/09/11 16:26 / dck	05/03/11 11:35	ICPMS204-B_110509A : 30	12052	
Mercury	ND	mg/L	0.00001		E245.1		05/10/11 16:03 / sfp	05/10/11 12:02	HGCV201-H_110510A : 19	12157	
Nickel	ND	mg/L	0.01		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Potassium	ND	mg/L	1		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Selenium	ND	mg/L	0.001		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Silver	ND	mg/L	0.0005		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Sodium	2	mg/L	1		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Thallium	ND	mg/L	0.0002		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Vanadium	ND	mg/L	0.1		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	
Zinc	ND	mg/L	0.01		E200.8		05/04/11 23:15 / dck	05/03/11 11:35	ICPMS204-B_110504A : 135	12052	

X9
5/3/11

Report RL - Analyte reporting limit.
 Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
Client Sample ID: S35 SW01
Lab ID: H11050028-002
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 08:55 **Date Received:** 05/02/11
Report Date: 05/12/11

Prepared by Helena, MT Branch

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.	-	0.1	A4500-H B	05/03/11 18:47 / zeg			MAN-TECH_110503A : 55		R70695
Conductivity	94	umhos/cm	-	1	A2510 B	05/03/11 11:43 / cmm			COND_110503A : 26		12064
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10	A2540 D	05/03/11 13:43 / cmm	05/03/11 13:16-124 (14410200)_110503A : 29				
Solids, Total Dissolved TDS @ 180 C	57	mg/L	-	10	A2540 C	05/03/11 14:03 / cmm	05/03/11 13:17-124 (14410200)_110503B : 24				12065
INORGANICS											
Alkalinity, Total as CaCO ₃	49	mg/L	-	4	A2320 B	05/03/11 18:47 / zeg			MAN-TECH_110503A : 54		R70695
Bicarbonate as HCO ₃	59	mg/L	-	4	A2320 B	05/03/11 18:47 / zeg			MAN-TECH_110503A : 54		R70695
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	-	4	A2320 B	05/03/11 18:47 / zeg			MAN-TECH_110503A : 54		R70695
Carboneate as CO ₃	ND	mg/L	-	1	E300.0	05/04/11 01:36 / zeg			IC101-H_110503B : 42		R70698
Chloride	ND	mg/L	-	1	E300.0	05/04/11 01:36 / zeg			IC101-H_110503B : 42		R70698
Sulfate	3	mg/L	-	1	A2340 B	05/05/11 13:10 / std			WATERCALC_C_110505A : 14		R70750
Hardness as CaCO ₃	50	mg/L	-	1							
METALS, DISSOLVED											
Aluminum	0.19	mg/L	-	0.03	E200.8	05/04/11 23:19 / dck			ICPMS204-B_110504A : 136		R70718
Calcium	12	mg/L	-	1	E200.8	05/04/11 23:19 / dck			ICPMS204-B_110504A : 136		R70718
Magnesium	5	mg/L	-	1	E200.8	05/04/11 23:19 / dck			ICPMS204-B_110504A : 136		R70718
Potassium	ND	mg/L	-	1	E200.8	05/04/11 23:19 / dck			ICPMS204-B_110504A : 136		R70718
Sodium	2	mg/L	-	1	E200.8	05/04/11 23:19 / dck			ICPMS204-B_110504A : 136		R70718
METALS, TOTAL RECOVERABLE											
Aluminum	0.26	mg/L	-	0.03	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Antimony	ND	mg/L	-	0.003	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Arsenic	ND	mg/L	-	0.003	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Barium	0.082	mg/L	-	0.005	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Beryllium	ND	mg/L	-	0.001	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Cadmium	ND	mg/L	-	0.00008	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Calcium	11	mg/L	-	1	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Chromium	ND	mg/L	-	0.001	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Cobalt	ND	mg/L	-	0.01	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Copper	0.003	mg/L	-	0.001	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052
Iron	0.20	mg/L	-	0.03	E200.8	05/04/11 23:24 / dck	05/03/11 11:35		ICPMS204-B_110504A : 137		12052

Report RL - Analyte reporting limit.
Definitions: *MCL* || *MCL* - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 SW01
Lab ID: H11050028-002
Matrix: Surface Water

Project: UBM/C Surface Water Section 35 Baseline
Collection Date: 04/29/11 08:55 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses		Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE												
Lead	ND	mg/L			0.0005	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Magnesium	5	mg/L			1	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Manganese	0.007	mg/L			0.005	E200.8		05/09/11 16:31 / dck	05/03/11 11:35	ICPMS204-B_110509A : 31	12052	
Mercury	ND	mg/L			0.00001	E245.1		05/10/11 16:05 / sfp	05/10/11 12:02	HGCV201-H_110510A : 20	12:57	
Nickel	ND	mg/L			0.01	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Potassium	ND	mg/L			1	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Selenium	ND	mg/L			0.001	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Silver	ND	mg/L			0.0005	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Sodium	2	mg/L			1	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Thallium	ND	mg/L			0.0002	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Vanadium	ND	mg/L			0.1	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	
Zinc	ND	mg/L			0.01	E200.8		05/04/11 23:24 / dck	05/03/11 11:35	ICPMS204-B_110504A : 137	12052	

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Report
Definitions:
RL - Analyte reporting limit.
MC - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35 SW02
Lab ID: H11050028-003
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 10:15 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.	-	0.1	A4500-H B	05/03/11 19:10 / zeg			MAN-TECH_110503A : 62	R70695	
Conductivity	100	umhos/cm		1	A2510 B	05/03/11 11:44 / cmm			COND_110503A : 2710503A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	05/03/11 13:44 / cmm	05/03/11 13:16:124 (14410200)_110503A : 30	12064			
Solids, Total Dissolved TDS @ 180 C	70	mg/L		10	A2540 C	05/03/11 14:03 / cmm	05/03/11 13:17:124 (14410200)_110503B : 25	12065			
INORGANICS											
Alkalinity, Total as CaCO3	51	mg/L		4	A2320 B	05/03/11 19:10 / zeg			MAN-TECH_110503A : 61	R70695	
Bicarbonate as HCO3	63	mg/L		4	A2320 B	05/03/11 19:10 / zeg			MAN-TECH_110503A : 61	R70695	
Carbonate as CO3	ND	mg/L		4	A2320 B	05/03/11 19:10 / zeg			MAN-TECH_110503A : 61	R70695	
Chloride	ND	mg/L		1	E300.0	05/04/11 01:52 / zeg			IC101-H_110503B : 43	R70698	
Sulfate	3	mg/L		1	E300.0	05/04/11 01:52 / zeg			IC101-H_110503B : 43	R70698	
Hardness as CaCO3	50	mg/L		1	A2340 B	05/05/11 13:10 / std			WATERCALC_110505A : 15	R70750	
METALS, DISSOLVED											
Aluminum	0.14	mg/L		0.03	E200.8	05/04/11 23:46 / dck			ICPMS204-B_110504A : 142	R70718	
Calcium	11	mg/L		1	E200.8	05/04/11 23:46 / dck			ICPMS204-B_110504A : 142	R70718	
Magnesium	5	mg/L		1	E200.8	05/04/11 23:46 / dck			ICPMS204-B_110504A : 142	R70718	
Potassium	ND	mg/L		1	E200.8	05/04/11 23:46 / dck			ICPMS204-B_110504A : 142	R70718	
Sodium	2	mg/L		1	E200.8	05/04/11 23:46 / dck			ICPMS204-B_110504A : 142	R70718	
METALS, TOTAL RECOVERABLE											
Aluminum	0.32	mg/L		0.03	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Antimony	ND	mg/L		0.003	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Arsenic	ND	mg/L		0.003	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Barium	0.082	mg/L		0.005	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Beryllium	ND	mg/L		0.001	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Cadmium	ND	mg/L		0.00008	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Calcium	12	mg/L		1	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Chromium	ND	mg/L		0.001	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Cobalt	ND	mg/L		0.01	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Copper	0.004	mg/L		0.001	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Iron	0.25	mg/L		0.03	E200.8	05/04/11 23:50 / dck			ICPMS204-B_110504A : 143	12052	
Report	RL - Analyte reporting limit.		<i>APB 4/13/11</i>		MCL - Maximum contaminant level.						
Definitions:	ND - Not detected at the reporting limit.										

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Project: UBM/C Surface Water Section 35 Baseline
Collection Date: 04/29/11 10:15 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses		Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE												
Lead	mg/L	ND			E200.8	0.0005		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Magnesium	mg/L	5		1	E200.8	0.005		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Manganese	mg/L	0.006		0.005	E200.8	0.00001		05/09/11 16:35 / dck	05/03/11 11:35	ICPMS204-B_110509A : 32	12052	
Mercury	mg/L	ND			E245.1	0.01		05/10/11 16:08 / stp	05/10/11 12:02	HGCV201-H_110510A : 21	12157	
Nickel	mg/L	ND			E200.8	1		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Potassium	mg/L	ND			E200.8	0.001		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Selenium	mg/L	ND			E200.8	0.0005		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Silver	mg/L	ND			E200.8	1		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Sodium	mg/L	2			E200.8	0.0002		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Thallium	mg/L	ND			E200.8	0.1		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Vanadium	mg/L	ND			E200.8	0.01		05/04/11 23:50 / dck	05/03/11 11:35	ICPMS204-B_110504A : 143	12052	
Zinc	mg/L	ND										

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Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 SW04
Lab ID: H11050028-004
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 11:52 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A4500-H B	05/03/11 19:25 / zeg					R70695
Conductivity	181	umhos/cm		1	A2510 B	05/03/11 11:45 / cmm					COND_110503A : 2810503A-COND-PROBI
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	05/03/11 13:44 / cmm	05/03/11 13:16-124 (14410200_110503A : 31				12064
Solids, Total Dissolved TDS @ 180 C	114	mg/L		10	A2540 C	05/03/11 14:04 / cmm	05/03/11 13:23-124 (14410200_110503B : 28				12066
INORGANICS											
Alkalinity, Total as CaCO ₃	56	mg/L		4	A2320 B	05/03/11 19:25 / zeg					MAN-TECH_110503A : 65
Bicarbonate as HCO ₃	68	mg/L		4	A2320 B	05/03/11 19:25 / zeg					MAN-TECH_110503A : 65
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		4	A2320 B	05/03/11 19:25 / zeg					MAN-TECH_110503A : 65
Carbonate as CO ₃	4	mg/L		1	E300.0	05/04/11 02:07 / zeg					IC101-H_110503B : 44
Chloride	27	mg/L		1	E300.0	05/04/11 02:07 / zeg					IC101-H_110503B : 44
Sulfate	88	mg/L		1	A2340 B	05/05/11 13:10 / std					WATERCALC_110505A : 16
Hardness as CaCO ₃											R70750
METALS, DISSOLVED											
Aluminum	0.10	mg/L		0.03	E200.8	05/04/11 23:55 / dck					ICPMS204-B_110504A : 144
Calcium	19	mg/L		1	E200.8	05/04/11 23:55 / dck					ICPMS204-B_110504A : 144
Magnesium	10	mg/L		1	E200.8	05/04/11 23:55 / dck					ICPMS204-B_110504A : 144
Potassium	ND	mg/L		1	E200.8	05/04/11 23:55 / dck					ICPMS204-B_110504A : 144
Sodium	3	mg/L		1	E200.8	05/04/11 23:55 / dck					ICPMS204-B_110504A : 144
METALS, TOTAL RECOVERABLE											
Aluminum	0.17	mg/L		0.03	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Antimony	ND	mg/L		0.003	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Arsenic	ND	mg/L		0.003	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Barium	0.121	mg/L		0.005	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Beryllium	ND	mg/L		0.001	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Cadmium	0.00029	mg/L		0.00008	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Calcium	19	mg/L		1	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Chromium	ND	mg/L		0.001	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Cobalt	ND	mg/L		0.01	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Copper	0.003	mg/L		0.001	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145
Iron	0.27	mg/L		0.03	E200.8	05/04/11 23:59 / dck					ICPMS204-B_110504A : 145

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

AB
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ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35 SW04
Lab ID: H11050028-004
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 11:52 Date Received: 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	0.0006	mg/L		0.0005	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Magnesium	10	mg/L		1	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Manganese	0.055	mg/L		0.005	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Mercury	ND	mg/L		0.00001	E245.1		05/10/11 16:15 / stp	05/10/11 12:02	HGCV201-H_110510A : 24		12157
Nickel	ND	mg/L		0.01	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Potassium	ND	mg/L		1	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Selenium	ND	mg/L		0.001	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Silver	ND	mg/L		0.0005	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Sodium	3	mg/L		1	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Thallium	ND	mg/L		0.0002	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Vanadium	ND	mg/L		0.1	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052
Zinc	0.17	mg/L		0.01	E200.8		05/04/11 23:59 / dck	05/03/11 11:35	ICPMS204-B_110504A : 145		12052

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Report Definitions:
RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ Site Response
Client Sample ID: S35 SW03
Lab ID: H11050028-005
Matrix: Surface Water

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	Run ID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A450-H B	05/03/11 19:31 / zeg					R70695
Conductivity	182	umhos/cm		1	A2510 B	05/03/11 11:45 / cmm					COND_H_110503A : 3010503A-COND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	05/03/11 13:44 / cmm	05/03/11 13:16-124 (14410200)_110503A : 32				12064
Solids, Total Dissolved TDS @ 180 C	126	mg/L		10	A2540 C	05/03/11 14:05 / cmm	05/03/11 13:23-124 (14410200)_110503B : 30				12066
INORGANICS											
Alkalinity, Total as CaCO ₃	56	mg/L		4	A2320 B	05/03/11 19:31 / zeg					MAN-TECH_H_110503A : 68
Bicarbonate as HCO ₃	69	mg/L		4	A2320 B	05/03/11 19:31 / zeg					MAN-TECH_H_110503A : 3010503A : 32
Carbonate as CO ₃	ND	mg/L		4	A2320 B	05/03/11 19:31 / zeg					COND_H_110503A : 3010503A-COND-PROB
Chloride	4	mg/L		1	E300.0	05/04/11 02:23 / zeg					IC101-H_110503B : 45
Sulfate	27	mg/L	+	1	E300.0	05/04/11 02:23 / zeg					IC101-H_110503B : 45
Hardness as CaCO ₃	87	mg/L		1	A2340 B	05/05/11 13:10 / std					WATERCALC_C_110505A : 17
METALS, DISSOLVED											
Aluminum	0.10	mg/L		0.03	E200.8	05/05/11 00:04 / dck					ICPMS204-B_110504A : 146
Calcium	19	mg/L		1	E200.8	05/05/11 00:04 / dck					ICPMS204-B_110504A : 146
Magnesium	10	mg/L		1	E200.8	05/05/11 00:04 / dck					ICPMS204-B_110504A : 146
Potassium	ND	mg/L		1	E200.8	05/05/11 00:04 / dck					ICPMS204-B_110504A : 146
Sodium	3	mg/L		1	E200.8	05/05/11 00:04 / dck					ICPMS204-B_110504A : 146
METALS, TOTAL RECOVERABLE											
Aluminum	0.20	mg/L		0.03	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Antimony	ND	mg/L		0.003	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Arsenic	ND	mg/L		0.003	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Barium	0.125	mg/L		0.005	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Beryllium	ND	mg/L		0.001	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Cadmium	0.00034	mg/L		0.00008	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Calcium	19	mg/L		1	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Chromium	ND	mg/L		0.001	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Cobalt	ND	mg/L		0.01	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Copper	0.003	mg/L		0.001	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Iron	0.31	mg/L		0.03	E200.8	05/05/11 00:08 / dck	05/03/11 11:35				ICPMS204-B_110504A : 147
Report	RL	Analyte reporting limit.									
Definitions:	MCL - Maximum contaminant level.										
	X3	X3									

ND - Not detected at the reporting limit.



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Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-650-2218

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/29/11 12:50 **Date Received:** 05/02/11
Report Date: 05/12/11

METALS, TOTAL RECOVERABLE

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
Lead	0.0006	mg/L		0.0005	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Magnesium	10	mg/L		1	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Manganese	0.068	mg/L		0.005	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Mercury	ND	mg/L		0.00001	E245.1	05/10/11 16:17 / sfp	05/07/11 12:02	HGCV201-H_110510A : 25			12157
Nickel	ND	mg/L		0.01	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Potassium	ND	mg/L		1	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Selenium	ND	mg/L		0.001	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Silver	ND	mg/L		0.0005	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	ICPMS204-B_110504A : 147			12052
Sodium	3	mg/L		1	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	CPMS204-B_110504A : 147			12052
Thallium	ND	mg/L		0.0002	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	CPMS204-B_110504A : 147			12052
Vanadium	ND	mg/L		0.1	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	CPMS204-B_110504A : 147			12052
Zinc	0.18	mg/L		0.01	E200.8	05/05/11 00:08 / dck	05/03/11 11:35	CPMS204-B_110504A : 147			12052

AB
5/12/11

Report
Definitions:
RL - Analyte reporting limit.
ND - Not detected at the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

May 12, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11050028 Quote ID: H645 - UBMC

Project Name: UBMC Surface Water Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 5 samples for MT DEQ-Site Response on 5/2/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11050028-001	S35 SW06	04/29/11 8:52	05/02/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11050028-002	S35 SW01	04/29/11 8:55	05/02/11	Surface Water	Same As Above
H11050028-003	S35 SW02	04/29/11 10:15	05/02/11	Surface Water	Same As Above
H11050028-004	S35 SW04	04/29/11 11:52	05/02/11	Surface Water	Same As Above
H11050028-005	S35 SW03	04/29/11 12:50	05/02/11	Surface Water	Same As Above

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

Workorder Receipt Checklist



MT DEQ-Site Response

H11050028

Login completed by: Tracy L. Lorash

Date Received: 5/2/2011

Reviewed by: BL2000\sdull

Received by: jdh

Reviewed Date: 5/5/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.6°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: MDEQ	Project Name, PWS, Permit, Etc. Section 316 Baseline	Sample Origin State: MI	EPA/State Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																												
Report Mail Address: Quatre: H-645	Contact Name: Shelley Haaland Phone/Fax: 841-5033	Email: shelley@mi.gov	Sampler: (Please Print) Alan Preischbach May Ballot																																												
Invoice Address:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:																																												
<table border="1"> <thead> <tr> <th colspan="2">ANALYSIS REQUESTED</th> <th colspan="2">SEE ATTACHED</th> </tr> </thead> <tbody> <tr> <td colspan="2"></td> <td colspan="2">Standard Turnaround (TAT)</td> </tr> <tr> <td colspan="2"></td> <td>R</td> <td>Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page</td> </tr> <tr> <td colspan="2"></td> <td>U</td> <td>Comments: <i>Priority rush</i></td> </tr> <tr> <td colspan="2"></td> <td>S</td> <td><i>Baseline</i></td> </tr> <tr> <td colspan="2"></td> <td>H</td> <td></td> </tr> </tbody> </table>				ANALYSIS REQUESTED		SEE ATTACHED				Standard Turnaround (TAT)				R	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page			U	Comments: <i>Priority rush</i>			S	<i>Baseline</i>			H																					
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Other:	<input type="checkbox"/> NELAC																																														
<p>Number of Containers: 1 Sample Type: A W/S V B O DW Air/Water/Solids/Vegetation/Bioassay/Other DW - Drinking Water Vegetation</p>																																															
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Custody Record MUST be Signed		Date/Time: 1545 hours	Received by (print): Tammy Haar																																												
Sample Disposal: Return to Client: Retained by (print): Retained by (print):		Date/Time: Signature:	Date/Time: Received by (print):																																												
Lab Disposal: Signature:		Date/Time: Signature:	Date/Time: Received by Laboratory:																																												

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Analyte Limits For Quote #: H-645

Schedule Name <i>TestName</i>	Analyte	Report Limit	Units
<u>UBMC Surface Water Section 35 Baseline</u>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

UBMC Surface Water Section 35 Baseline

SDG#: H11050031

Number of Samples: 1

Sample Matrix: Water

Applicable Analytes: pH, Conductivity, Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Anions (Chloride and Sulfate), Alkalinity (Total Alkalinity, Bicarbonate, and Carbonate), Hardness, Metals Dissolved: (Al, Ca, Mg, K, and Na), and Total Recoverable Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn)

Reporting Tier: 3

Applicable TOS#: N/A

Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator: Amber Brinley

Date Completed: 06/03/11

Portage Review: _____

Date Completed: 06/03/11

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Surface Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Surface Water Section 35 Baseline water sample results were received by Portage, Inc. in May 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), and total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn) results. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 245.1, and 200.8. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Surface Water Section 35 Baseline Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35 SW05	H11050031-001	Water	pH, Conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, & carbonate) chloride, sulfate, hardness, dissolved metals, and total recoverable metals	04/28/11	05/02/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 04/28/11. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 05/03/11, chloride and sulfate results were analyzed on 05/04/11, hardness results were analyzed on 05/06/11, dissolved metal and total recoverable metal results were analyzed on 05/05/11. The analyses occurred within the 28-day holding time for conductivity, sulfate, chloride, and mercury, the 7 day holding time for TSS and TDS, the 14-day holding time for alkalinity, and within the 180-day holding time for hardness, dissolved metals, and total recoverable metals.

The pH samples were collected on 04/28/11, received on 05/02/11, and analyzed on 05/03/11 approximately 4-days after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a "J-" validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved and the laboratory made every effort to analyze the samples in a timely fashion as they were received outside of the 24 hour holding time.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB for total alkalinity exhibited a positive detection between the MDL and RL. No qualification is warranted as the reported result was greater than the RL and greater than five times the PB concentration.

The PB (run ID ICPMS204-B_110504A) for total recoverable metals affecting all target analytes, except Mn and Hg, exhibited positive detections between the MDL and RL for aluminum, arsenic, barium, magnesium, sodium, vanadium, and zinc. All aluminum, arsenic, barium, iron, magnesium, sodium, vanadium, and zinc results warrant no qualification as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration prescribed by the USEPA Functional Guidelines and the analytical methods. The PB (run ID ICPMS204-B_110505A) for total recoverable metals affecting Mn only exhibited positive detections were noted for aluminum, arsenic, barium, iron, magnesium, selenium, sodium, vanadium, and zinc. Manganese was non-detect in the PB and no qualifications are warranted. The remaining analytes present in the PB warrant no qualification as they were assessed using the PB (ICPMS204-B_110504A) and were either non-detect or greater than the RL and five times the PB concentration.

The PBs for dissolved metals exhibited a positive detection for sodium and potassium between the MDL and RL. Sodium warrants no qualification as all sample results were greater than the RL and greater than five times the PB concentration. Potassium in S35 SW05 has been qualified with a "U" validation flag as the reported result was equal to the RL as prescribed by the USEPA Functional Guidelines and the analytical methods.

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

The ICS result for cobalt (124%) was outside of the 80-120% acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods. Cobalt warrants no qualification due to high ICS recovery as all sample results were non-detect.

The remaining ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The MS (125%) and MSD (131%) for sulfate was outside of the 90-110% acceptance criteria per USEPA Method 300.0. The sulfate result has been qualified with a “J+” validation flag as the sample result was greater than the MDL and high MS/MSD recoveries as prescribed by the USEPA Functional Guidelines and the analytical methods.

The remaining MS/MSD recovery and all MSD RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There was one (1) water field sample included in SDG# H11050031. One (1) field sample was analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals as outlined in the project QAPP.

The pH result has been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

The sulfate result has been qualified with a “J+” validation flag to denote the reported result is an estimate with a high bias due to high MS/MSD recoveries.

The potassium result for dissolved metals has been qualified with a “U” validation flag to denote the reported result is non-detect due to detection in the preparation blank.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35 SW05
Lab ID: H11050031-001
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 04/28/11 17:17 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A4500-H B	05/03/11 19:57 / zeg			MAN-TECH_110503A : 76	R70695	
Conductivity	108	umhos/cm	-	1	A2510 B	05/03/11 11:50 / cmn			COND_110503A : 3410503A-COND-PROB	R70695	
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10	A2540 D	05/03/11 13:46 / cmn 05/03/11 13:16-124 (14410200)_110503A : 35	05/03/11 13:23-124 (14410200)_110503B : 34		12064		
Solids, Total Dissolved TDS @ 180 C	81	mg/L	-	10	A2540 C	05/03/11 14:07 / cmn 05/03/11 13:23-124 (14410200)_110503B : 34			12066		
INORGANICS											
Alkalinity, Total as CaCO ₃	52	mg/L	-	4	A2320 B	05/03/11 19:57 / zeg			MAN-TECH_110503A : 75	R70695	
Bicarbonate as HCO ₃	63	mg/L	-	4	A2320 B	05/03/11 19:57 / zeg			MAN-TECH_110503A : 75	R70695	
Carbonate as CO ₃	ND	mg/L	-	4	A2320 B	05/03/11 19:57 / zeg			MAN-TECH_110503A : 75	R70695	
Chloride	ND	mg/L	-	1	E300.0	05/04/11 04:10 / zeg			IC101-H_110503B : 52	R70698	
Sulfate	3	mg/L	-	1	E300.0	05/04/11 04:10 / zeg			IC101-H_110503B : 52	R70698	
Hardness as CaCO ₃	55	mg/L	-	1	A2340 B	05/06/11 09:58 / std			WATERCALC_110506A : 4	R70790	
METALS, DISSOLVED											
Aluminum	0.89	mg/L	-	0.03	E200.8	05/05/11 01:01 / dck			ICPMS204-B_110504A : 159	R70718	
Calcium	13	mg/L	-	1	E200.8	05/05/11 01:01 / dck			ICPMS204-B_110504A : 159	R70718	
Magnesium	5	mg/L	-	1	E200.8	05/05/11 01:01 / dck			ICPMS204-B_110504A : 159	R70718	
Potassium	1	mg/L	-	1	E200.8	05/05/11 18:18 / dck			ICPMS204-B_110505A : 71	R70779	
Sodium	2	mg/L	-	1	E200.8	05/05/11 01:01 / dck			ICPMS204-B_110504A : 159	R70718	
METALS, TOTAL RECOVERABLE											
Aluminum	0.83	mg/L	-	0.03	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Antimony	ND	mg/L	-	0.003	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Arsenic	ND	mg/L	-	0.003	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Barium	0.111	mg/L	-	0.005	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Beryllium	ND	mg/L	-	0.001	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Cadmium	ND	mg/L	-	0.00008	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Calcium	13	mg/L	-	1	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Chromium	ND	mg/L	-	0.001	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Cobalt	ND	mg/L	-	0.01	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Copper	0.003	mg/L	-	0.001	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	
Iron	0.54	mg/L	-	0.03	E200.8	05/05/11 01:05 / dck	05/03/11 11:35		ICPMS204-B_110504A : 160	12052	

Report: RL - Analyte reporting limit.
Definitions: MCL - Maximum contaminant level.

Xp
4/3/v

ND - Not detected at the reporting limit.



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Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-690-2218

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Project: UBM/C Surface Water Section 35 Baseline
Collection Date: 04/28/11 17:17 **Date Received:** 05/02/11
Report Date: 05/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Magnesium	5	mg/L		1	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Manganese	0.011	mg/L		0.005	E200.8		05/05/11 18:23 / dck	05/03/11 11:35	ICPMS204-B_110505A : 72		12052
Mercury	ND	mg/L		0.00001	E245.1		05/10/11 16:24 / stp	05/10/11 12:02	HGCV201-H_110510A : 28		12157
Nickel	ND	mg/L		0.01	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Potassium	ND	mg/L		1	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Selenium	ND	mg/L		0.001	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Silver	ND	mg/L		0.0005	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Sodium	2	mg/L		1	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Thallium	ND	mg/L		0.0002	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Vanadium	ND	mg/L		0.1	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052
Zinc	ND	mg/L		0.01	E200.8		05/05/11 01:05 / dck	05/03/11 11:35	ICPMS204-B_110504A : 160		12052

Xm 13/11

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

May 12, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11050031 Quote ID: H645 - UBMC

Project Name: UBMC Surface Water Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 1 sample for MT DEQ-Site Response on 5/2/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11050031-001	S35 SW05	04/28/11 17:17	05/02/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

Workorder Receipt Checklist



MT DEQ-Site Response

H11050031

Login completed by: Tracy L. Lorash

Date Received: 5/2/2011

Reviewed by: BL2000\kwiegand

Received by: jdh

Reviewed Date: 5/4/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.6°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: MEQ	Project Name, PWS, Permit, Etc. Section 35 Rules	Sample Origin State: MI	EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>
Report Mail Address: Quincy H-645	Contact Name: Shullie Hankland	Email: shullie.hankland@env.gov	Sampler: (Please Print) Alan Braslaw
Invoice Address: Shullie Hankland	Phone/Fax: 841-5033	Purchase Order: 100031	Quote/Bottle Order: MEQ
Special Report/Formats:		<input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT(Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: LEVEL IV <input type="checkbox"/> State: _____ <input type="checkbox"/> NELAC <input type="checkbox"/> Other: _____	
ANALYSIS REQUESTED Number of Containers: 1 Sample Type: A W S V B O DW Air/Water/Solids/Soil/Bioassay/DW - Drinking Water Vegetation/Drinking Water DW - Drinking Water			
SEE ATTACHED Standard Turnaround (TAT) Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page R U S H Comments: p/c, copy result to Alan Braslaw, w/ signature			
Shipped by: Hand Del Shipped by: Hand Del Carrier ID(s): 5.6 °C On Ice: N Receipt Temp: 5.6 °C Custody Seal: Y On Bottle: Y Intact: Y On Cooler: Y Signature Match: Y Signature: Y			
LABORATORY USE ONLY H11050031			
Signature: Shullie Hankland Date/Time: 5/27/11 Received by (print): Shullie Hankland Date/Time: 5/27/11 Signature: Alan Braslaw Date/Time: 5/27/11 Received by (print): Alan Braslaw Date/Time: 5/27/11 Signature: Jeffrey Hayes Date/Time: 5/27/11 Received by (print): Jeffrey Hayes Date/Time: 5/27/11			
Custody Record MUST be Signed Sample Disposal: Return to Client. Lab Disposal: K			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
JBMC Surface Water Section 35 Baseline			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

UBMC Section 35 Surface Water

SDG#: H11060300

Number of Samples: 6

Sample Matrix: Water

Applicable Analytes: (6) pH, Conductivity, Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Alkalinity (total alkalinity, bicarbonate, and carbonate), Anions (Chloride and Sulfate), Hardness, Dissolved Metals: (Al, Ca, Mg, K, and Na), and (2) Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), (4) Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, and Zn) and (3) Total Hg by USEPA Method 245.1 and (1) Total Recoverable Hg by USEPA Method 245.1

Reporting Tier: 3

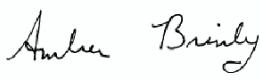
Applicable TOS#: N/A

Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator:  **Date Completed:** 08/09/11

Portage Review:  **Date Completed:** 08/15/11

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Surface Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Section 35 Surface Water surface water sample results were received by Portage, Inc. in August 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), total Hg by USEPA Method 245.1, and total recoverable Hg by USEPA Method 245.1. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 200.7, 200.8, and 245.1. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Section 35 Surface Water Surface Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35SW04	H11060300-001	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	06/14/11	06/15/11
S35SW03	H11060300-002	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	06/14/11	06/15/11
S35SW01	H11060300-003	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/14/11	06/15/11
S35SW06	H11060300-004	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/14/11	06/15/11

Cross-Reference for UBMC Section 35 Surface Water Surface Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35SW02	H11060300-005	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/14/11	06/15/11
S35SW05	H11060300-006	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Recoverable Hg by USEPA Method 245.1	06/14/11	06/15/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 06/14/11. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 06/16/11 within the 28-day holding time for conductivity, the 14-day holding time for alkalinity (total alkalinity, bicarbonate, and carbonate), and the 7-day holding time for TSS and TDS. The chloride and sulfate results were analyzed on 06/18/11 within the 28-day holding time. The hardness results were analyzed on 06/23/11 within the 180-day holding time. The dissolved metals were analyzed on 06/16/11 and 06/22/11 and the total recoverable metals were analyzed on 06/22/11 and 06/23/11 within the 28-day holding time for mercury and within the 180-day holding time for the remaining analytes. The total recoverable mercury result in S35SW05 was analyzed on 06/24/11 within the 28-day holding time.

The total mercury results for field samples S35SW01, S35SW06, and S35SW02 were collected on 06/14/11 and analyzed on 07/20/11-07/21/11, 8 and 9 days after the 28-day holding time for mercury had expired. In the professional judgment of the validator, the total mercury results for field samples S35SW01, S35SW06, and S35SW02 were non-detect and have been qualified with a "UJ" validation flag as the holding time was minimally exceeded resulting in minimal impact to the data.

The pH samples were collected on 06/14/11, received on 06/15/11, and analyzed on 06/16/11 approximately 25-28 hours after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a "J-" validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved and as the laboratory made every effort to analyze the samples in a timely fashion.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB (run ID MAN-TECH_110617B) analyzed on 06/16/11 at 13:56 and the PB (run ID MAN-TECH_110617B) analyzed on 06/16/11 at 16:38 for alkalinity exhibited positive detections between the MDL and RL. No qualification is warranted as the reported results were greater than the RL and greater than five times the PB concentration.

The PB (run ID ICPMS204-B_110620B) analyzed on 06/20/11 at 17:25 associated with all total recoverable metals in field samples S35SW01, S35SW06, S35SW02, S35SW05 except Hg and Mn in field sample S35SW05 exhibited a positive detection for manganese between the MDL and RL. The associated manganese results warrant no qualification as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration.

The PB (run ID ICPMS204-B_110622A) analyzed on 06/23/11 at 08:03 associated with only Mn in field sample S35SW05 exhibited positive detections for arsenic, barium, chromium, iron, lead, magnesium, manganese, nickel, sodium, thallium, vanadium, and zinc between the MDL and RL. The associated manganese result in field sample S35SW05 warrants no qualification as the reported result was greater than the RL and greater than five times the PB concentration. No qualification is warranted due to positive detections in the PB for arsenic, barium, chromium, lead, magnesium, manganese, nickel, sodium, thallium, vanadium, and zinc and the reported results for field sample S35SW05 were associated with PB (run ID ICPMS204-B_110620B) analyzed on 06/20/11 at 17:25.

The PB (run ID HGCV201-H_11624A) analyzed on 06/24/11 at 13:10 associated with total recoverable mercury in field sample S35SW05 exhibited a positive detection equal to the RL. Mercury in field sample S35SW05 warrants no qualification due to positive detection in the PB as the reported concentration was greater than the RL.

The initial calibration blank (instrument blank) (run ID SUB-C148348) analyzed on 07/20/11 at 15:31 associated with total mercury in field samples S35SW01, S35SW06, and S35SW02 exhibited a positive detection between the MDL and RL. Total mercury in field samples S35SW01, S35SW06, and S35SW02 warrants no qualification due to positive detection in the initial calibration blank as the reported results were non-detect.

The PB (run ID ICP2-HE_110616A) analyzed on 06/16/11 at 11:59 associated with dissolved metals results for Mg, K, and Na in all field samples exhibited a positive detection between the MDL and RL for magnesium. Magnesium warrants no qualification due to positive detection in the PB as all magnesium results were greater than the RL and greater than five times the PB concentration.

The PB (run ID ICPMS204-B_110620B) analyzed on 06/20/11 at 17:12 associated with all dissolved metal results for aluminum and calcium and all total recoverable metals for field samples S35SW04 and S35SW03 exhibited positive detections between the MDL and RL for aluminum, beryllium, calcium, iron, silver, and zinc. All associated aluminum, beryllium, calcium, iron, silver, and zinc results warrant no qualification due to positive detection in the method blank as the reported concentrations were either non-detect or were greater than the RL and greater than five times the PB concentration.

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

All ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The MS (52%) and MSD (64%) for mercury in field sample S35SW05 were outside of the 75-125% acceptance criteria. Mercury in S35SW05 exhibited a positive detection above the MDL and has been qualified with a “J-“ validation flag due to low MS/MSD recoveries.

The remaining MS/MSD recovery RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were six (6) water field samples included in SDG# H11060300. Six (6) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals, three (3) field samples were analyzed for total mercury by USEPA Method 245.1, and one (1) field sample was analyzed for total recoverable mercury by USEPA Method 245.1 as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

The total mercury results for field samples S35SW01, S35SW06, and S35SW02 have been qualified with a “UJ” validation flag to denote the data is non-detect, and the reported concentration is an estimate due to exceeded holding times.

The total recoverable mercury result for field sample S35SW05 has been qualified with a “J-“ validation flag to denote the reported results are estimates with low bias due to low MS/MSD recoveries.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11060300-001
Matrix: Aqueous

Project: Section 35 Baseline **Collection Date:** 06/14/11 12:30 **Date Received:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	s.u.	-	0.1		A4500-H B	06/16/11 16:23 / zeg				R71916
Conductivity	155	umhos/cm	-	1		A250 B	06/16/11 10:44 / cmm				
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10		A2540 D	06/16/11 11:25 / cmm	06/16/11 09:53-124 (14410200)_110616A : 31			12579
Solids, Total Dissolved TDS @ 180 C	34	mg/L	-	10		A2540 C	06/16/11 11:19 / cmm	06/16/11 09:57-124 (14410200)_110616B : 24			12580
INORGANICS											
Alkalinity, Total as CaCO ₃	60	mg/L	-	4		A2320 B	06/16/11 16:23 / zeg				
Bicarbonate as HCO ₃	74	mg/L	-	4		A2320 B	06/16/11 16:23 / zeg				
Carbonate as CO ₃	ND	mg/L	-	4		A2320 B	06/16/11 16:23 / zeg				
Chloride	ND	mg/L	-	1		E300.0	06/18/11 18:22 / zeg				
Sulfate	13	mg/L	-	1		E300.0	06/18/11 18:22 / zeg				
Hardness as CaCO ₃	69	mg/L	-	1		A2340 B	06/23/11 07:56 / std				
METALS, DISSOLVED											
Aluminum	ND	mg/L	-	0.03		E200.8	06/22/11 00:57 / dck				
Calcium	15	mg/L	-	1		E200.8	06/22/11 00:57 / dck				
Magnesium	7	mg/L	-	1		E200.7	06/16/11 14:07 / std				
Potassium	ND	mg/L	-	1		E200.7	06/16/11 14:07 / std				
Sodium	2	mg/L	-	1		E200.7	06/16/11 14:07 / std				
METALS, TOTAL RECOVERABLE											
Aluminum	0.04	mg/L	-	0.03		E200.8	06/22/11 01:19 / dck				
Antimony	ND	mg/L	-	0.003		E200.8	06/22/11 01:19 / dck				
Arsenic	ND	mg/L	-	0.003		E200.8	06/22/11 01:19 / dck				
Barium	0.157	mg/L	-	0.005		E200.8	06/22/11 01:19 / dck				
Beryllium	ND	mg/L	-	0.001		E200.8	06/22/11 01:19 / dck				
Cadmium	0.00047	mg/L	-	0.0008		E200.8	06/22/11 01:19 / dck				
Calcium	15	mg/L	-	1		E200.8	06/22/11 01:19 / dck				
Chromium	ND	mg/L	-	0.001		E200.8	06/22/11 01:19 / dck				
Cobalt	ND	mg/L	-	0.01		E200.8	06/22/11 01:19 / dck				
Copper	0.003	mg/L	-	0.001		E200.8	06/22/11 01:19 / dck				
Iron	0.08	mg/L	-	0.03		E200.8	06/22/11 01:19 / dck				
MCL - Maximum contaminant level.											
ND - Not detected at the reporting limit.											

Report Definitions: RL - Analyte reporting limit.

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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
 Client Sample ID S35SW04
 Lab ID: H11060300-001
 Matrix: Aqueous

Project: Section 35 Baseline
 Collection Date: 06/14/11 12:30 Date Received: 06/15/11
 Report Date: 07/24/11

Analyses		Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE												
Lead	0.0008	mg/L			0.0005		E200.8	06/22/11 01:19 / dck				
Magnesium	7	mg/L		1			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Manganese	0.017	mg/L		0.005			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Mercury	ND	mg/L		0.00001			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Nickel	ND	mg/L		0.01			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Potassium	ND	mg/L		1			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Selenium	ND	mg/L		0.001			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Silver	ND	mg/L		0.0005			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Sodium	2	mg/L		1			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Thallium	ND	mg/L		0.0002			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Vanadium	ND	mg/L		0.1			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279
Zinc	0.17	mg/L		0.01			E200.8	06/22/11 01:19 / dck				ICPMS204-B_110620B : 279

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11060300-002
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 13:15 **Date Received:** 06/15/11
Report Date: 07/24/11

	Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH		8.0	S.U.	-	0.1		A4500-HB	06/16/11 16:30 / zeg				
Conductivity		155	umhos/cm	-	1		A2510 B	06/16/11 10:45 / cmm				
Solids, Total Suspended TSS @ 105 C		ND	mg/L	-	10		A2540 D	06/16/11 11:25 / cmm	06/16/11 09:53-124(14410200)_110616A::32			
Solids, Total Dissolved TDS @ 180 C		54	mg/L	-	10		A2540 C	06/16/11 11:20 / cmm	06/16/11 09:57-124(14410200)_110616B::25			
INORGANICS												
Alkalinity, Total as CaCO3		60	mg/L	-	4		A2320 B	06/16/11 16:30 / zeg				
Bicarbonate as HCO3		73	mg/L	-	4		A2320 B	06/16/11 16:30 / zeg				
Carbonate as CO3		ND	mg/L	-	4		A2320 B	06/16/11 16:30 / zeg				
Chloride		ND	mg/L	-	1		E300.0	06/18/11 18:38 / zeg				
Sulfate		13	mg/L	-	1		E300.0	06/18/11 18:38 / zeg				
Hardness as CaCO3		68	mg/L	-	1		A2340 B	06/23/11 07:56 / std				
METALS, DISSOLVED												
Aluminum		ND	mg/L	-	0.03		E200.8	06/22/11 01:24 / dck				
Calcium		15	mg/L	-	1		E200.8	06/22/11 01:24 / dck				
Magnesium		7	mg/L	-	1		E200.7	06/16/11 14:11 / std				
Potassium		ND	mg/L	-	1		E200.7	06/16/11 14:11 / std				
Sodium		2	mg/L	-	1		E200.7	06/16/11 14:11 / std				
METALS, TOTAL RECOVERABLE												
Aluminum		0.04	mg/L	-	0.03		E200.8	06/22/11 01:29 / dck				
Antimony		ND	mg/L	-	0.003		E200.8	06/22/11 01:29 / dck				
Arsenic		ND	mg/L	-	0.003		E200.8	06/22/11 01:29 / dck				
Barium		0.158	mg/L	-	0.005		E200.8	06/22/11 01:29 / dck				
Beryllium		ND	mg/L	-	0.001		E200.8	06/22/11 01:29 / dck				
Cadmium		0.00046	mg/L	-	0.00008		E200.8	06/22/11 01:29 / dck				
Calcium		15	mg/L	-	1		E200.8	06/22/11 01:29 / dck				
Chromium		ND	mg/L	-	0.001		E200.8	06/22/11 01:29 / dck				
Cobalt		ND	mg/L	-	0.01		E200.8	06/22/11 01:29 / dck				
Copper		0.004	mg/L	-	0.001		E200.8	06/22/11 01:29 / dck				
Iron		0.08	mg/L	-	0.03		E200.8	06/22/11 01:29 / dck				

Report Definitions: RL - Analyte reporting limit.

APR 8/9/11

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Project: Section 35 Baseline **Collection Date:** 06/14/11 13:15 **DateReceived:** 06/15/11
Report Date: 07/24/11

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11060300-002
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	0.0009	mg/L		0.0005		E200.8	06/22/11 01:29 / dck		ICPMS204-B_110620B : 281	R72000	
Magnesium	7	mg/L	1	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Manganese	0.016	mg/L	0.005	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Mercury	ND	mg/L	0.00001	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Nickel	ND	mg/L	0.01	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Potassium	ND	mg/L	1	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Selenium	ND	mg/L	0.001	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Silver	ND	mg/L	0.0005	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Sodium	2	mg/L	1	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Thallium	ND	mg/L	0.0002	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Vanadium	ND	mg/L	0.1	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				
Zinc	0.17	mg/L	0.01	E200.8	06/22/11 01:29 / dck	ICPMS204-B_110620B : 281	R72000				

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11060300-003
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:10 **DateReceived:** 06/15/11
Report Date: 07/24/11

		Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
Analyses												
PHYSICAL PROPERTIES												
pH		8.0	S.U.	-	0.1		A4500-H B	06/16/11 16:53 / zeg				
Conductivity		116	umhos/cm	-	1		A2510 B	06/16/11 10:46 / cmm				
Solids, Total Suspended TSS @ 105 C		ND	mgL	-	10		A2540 D	06/16/11 09:53-124 (14410200)_110616A : 33				
Solids, Total Dissolved TDS @ 180 C		52	mgL	-	10		A2540 C	06/16/11 11:20 / cmm 06/16/11 11:11-124 (14410200)_110616B : 28				
INORGANICS												
Alkalinity, Total as CaCO3		57	mgL	-	4		A2320 B	06/16/11 16:53 / zeg				
Bicarbonate as HCO3		69	mgL	-	4		A2320 B	06/16/11 16:53 / zeg				
Carbonate as CO3		ND	mgL	-	4		A2320 B	06/16/11 16:53 / zeg				
Chloride		ND	mgL	-	1		E300.0	06/18/11 18:53 / zeg				
Sulfate		2	mgL	-	1		E300.0	06/18/11 18:53 / zeg				
Hardness as CaCO3		52	mgL	-	1		A2340 B	06/23/11 07:56 / std				
METALS, DISSOLVED												
Aluminum		ND	mgL	-	0.03		E200.8	06/22/11 01:33 / dck				
Calcium		12	mgL	-	1		E200.8	06/22/11 01:33 / dck				
Magnesium		5	mgL	-	1		E200.7	06/16/11 14:15 / std				
Potassium		ND	mgL	-	1		E200.7	06/16/11 14:15 / std				
Sodium		2	mgL	-	1		E200.7	06/16/11 14:15 / std				
METALS, TOTAL												
Mercury		ND	mgL	-	0.00001		E245.1	07/20/11 16:08 / elica 07/21/11 15:04				
METALS, TOTAL RECOVERABLE												
Aluminum		0.08	mgL	-	0.03		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Antimony		ND	mgL	-	0.003		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Arsenic		ND	mgL	-	0.003		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Barium		0.104	mgL	-	0.005		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Beryllium		ND	mgL	-	0.001		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Cadmium		ND	mgL	-	0.00008		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Calcium		12	mgL	-	1		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
Chromium		ND	mgL	-	0.001		E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286		
MCL - Maximum contaminant level.												
Report		RL - Analyte reporting limit.										
Definitions:		ND - Not detected at the reporting limit.										

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11060300-003
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Copper	0.002	mg/L		0.001	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Iron	0.11	mg/L		0.03	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Lead	ND	mg/L		0.0005	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Magnesium	5	mg/L		1	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Manganese	0.011	mg/L		0.005	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Nickel	ND	mg/L		0.01	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Potassium	ND	mg/L		1	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Selenium	ND	mg/L		0.001	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Silver	ND	mg/L		0.0005	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Sodium	2	mg/L		1	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Thallium	ND	mg/L		0.0002	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Vanadium	ND	mg/L		0.1	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		
Zinc	ND	mg/L		0.01	E200.8	06/22/11 01:51 / dck	06/16/11 13:31	ICPMS204-B_110620B : 286	12586		

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11060300-004
Matrix: Aqueous

Project: Section 35 Baseline

Collection Date: 06/14/11 14:10

Date Received: 06/15/11

Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.0	S.U.	-	0.1		A4500-HB	06/16/11 17:07 / zeg				R71916
Conductivity	111	umhos/cm	-	1		A2510 B	06/16/11 10:48 / cmm				R71916
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10		A2540 D	06/16/11 11:25 / cmm	06/16/11 11:11-124 (14410200)_110616A : 34			12579
Solids, Total Dissolved TDS @ 180 C	76	mg/L	-	10		A2540 C	06/16/11 11:21 / cmm	06/16/11 11:11-124 (14410200)_110616B : 30			12581
INORGANICS											
Alkalinity, Total as CaCO3	58	mg/L	-	4		A2320 B	06/16/11 17:07 / zeg				R71916
Bicarbonate as HCO3	70	mg/L	-	4		A2320 B	06/16/11 17:07 / zeg				R71916
Carbonate as CO3	ND	mg/L	-	4		A2320 B	06/16/11 17:07 / zeg				R71916
Chloride	ND	mg/L	-	4		E300.0	06/18/11 19:39 / zeg				R71954
Sulfate	2	mg/L	-	1		E300.0	06/18/11 19:39 / zeg				R71954
Hardness as CaCO3	51	mg/L	-	1		A2340 B	06/23/11 07:56 / std				R72092
METALS, DISSOLVED											
Aluminum	ND	mg/L	-	0.03		E200.8	06/22/11 01:56 / dck				R72000
Calcium	12	mg/L	-	1		E200.8	06/22/11 01:56 / dck				R72000
Magnesium	5	mg/L	-	1		E200.7	06/16/11 14:25 / std				R71921
Potassium	ND	mg/L	-	1		E200.7	06/16/11 14:25 / std				R71921
Sodium	2	mg/L	-	1		E200.7	06/16/11 14:25 / std				R71921
METALS, TOTAL											
Mercury	ND	mg/L	-	0.0001		E245.1	07/20/11 16:10 / eli-ca	07/21/11 15:04			SUB-C148348 : 9
METALS, TOTAL RECOVERABLE											
Aluminum	0.09	mg/L	-	0.03		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Antimony	ND	mg/L	-	0.003		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Arsenic	ND	mg/L	-	0.003		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Barium	0.101	mg/L	-	0.005		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Beryllium	ND	mg/L	-	0.001		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Cadmium	ND	mg/L	-	0.00008		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Calcium	12	mg/L	-	1		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Chromium	ND	mg/L	-	0.001		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292		12586
Report Definitions:	RL - Analyte reporting limit.										
	MCL - Maximum contaminant level.										
	ND - Not detected at the reporting limit.										

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35SW06
Lab ID: H11060300-004
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:10
Report Date: 07/24/11
DateReceived: 06/15/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Copper	0.002	mg/L		0.001		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Iron	0.11	mg/L		0.03		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Lead	ND	mg/L		0.0005		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Magnesium	5	mg/L		1		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Manganese	0.013	mg/L		0.005		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Nickel	ND	mg/L		0.01		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Potassium	ND	mg/L		1		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Selenium	ND	mg/L		0.001		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Silver	ND	mg/L		0.0005		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Sodium	2	mg/L		1		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Thallium	ND	mg/L		0.0002		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Vanadium	ND	mg/L		0.1		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	
Zinc	ND	mg/L		0.01		E200.8	06/22/11 02:18 / dck	06/16/11 13:31	ICPMS204-B_110620B : 292	12586	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11060300-005
Matrix: Aqueous

Project: Section 35 Baseline **Date Received:** 06/15/11
Collection Date: 06/14/11 14:50 **Report Date:** 07/24/11

	Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH		7.9	s.u.	-	0.1		A4500-HB	06/16/11 17:14 / zeg				
Conductivity		110	umhos/cm	-	1		A2510 B	06/16/11 10:49 / cmn				
Solids, Total Suspended TSS @ 105 C		ND	mg/L	-	10		A2540 D	06/16/11 11:26 / cmn	06/16/11 09:53 -124 (14410200) -110616A : 35			
Solids, Total Dissolved TDS @ 180 C		50	mg/L	-	10		A2540 C	06/16/11 11:21 / cmn	06/16/11 11:11 -124 (14410200) -110616B : 32			
INORGANICS												
Alkalinity, Total as CaCO ₃		56	mg/L	-	4		A2320 B	06/16/11 17:14 / zeg		MAN-TECH_110617B : 69	R71916	
Bicarbonate as HC ₀₃		68	mg/L	-	4		A2320 B	06/16/11 17:14 / zeg		COND_110616B : 3410616A-COND-PROB	R71916	
Carbonate as CO ₃		ND	mg/L	-	4		A2320 B	06/16/11 17:14 / zeg			12579	
Chloride		ND	mg/L	-	1		E300.0	06/18/11 19:55 / zeg		MAN-TECH_110617B : 69	R71916	
Sulfate		2	mg/L	-	1		E300.0	06/18/11 19:55 / zeg		IC101-H_110618A : 43	R71954	
Hardness as CaCO ₃		50	mg/L	-	1		A2340 B	06/23/11 07:56 / std		IC101-H_110618A : 43	R71954	
METALS, DISSOLVED												
Aluminum		0.05	mg/L	-	0.03		E200.8	06/22/11 02:23 / dck		WATERCALC_110623B : 13	R72000	
Calcium		11	mg/L	-	1		E200.8	06/22/11 02:23 / dck		ICPMS204-B_110620B : 293	R72000	
Magnesium		5	mg/L	-	1		E200.7	06/16/11 14:29 / std		ICP2-HE_110616A : 54	R71921	
Potassium		ND	mg/L	-	1		E200.7	06/16/11 14:29 / std		ICP2-HE_110616A : 54	R71921	
Sodium		2	mg/L	-	1		E200.7	06/16/11 14:29 / std		ICP2-HE_110616A : 54	R71921	
METALS, TOTAL												
Mercury		ND	mg/L	U	3	0.0001	E245.1	07/20/11 16:11 / eli-ca 07/21/11 15:04		SUB-C148348 : 8	C_30476	
METALS, TOTAL RECOVERABLE												
Aluminum		0.09	mg/L	-	0.03		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Antimony		ND	mg/L	-	0.003		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Arsenic		ND	mg/L	-	0.003		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Barium		0.103	mg/L	-	0.005		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Beryllium		ND	mg/L	-	0.001		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Cadmium		ND	mg/L	-	0.00008		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Calcium		12	mg/L	-	1		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	
Chromium		ND	mg/L	-	0.001		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMs204-B_110620B : 294	12586	

Report Definitions: RL - Analyte reporting limit.

8/9/11 MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35SW02
Lab ID: H11060300-005
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 14:50 Date Received: 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Copper	0.003	mg/L		0.001		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Iron	0.08	mg/L		0.03		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Lead	ND	mg/L		0.0005		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Magnesium	5	mg/L	1			E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Manganese	ND	mg/L		0.005		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Nickel	ND	mg/L		0.01		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Potassium	ND	mg/L	1			E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Selenium	ND	mg/L		0.001		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Silver	ND	mg/L		0.0005		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Sodium	2	mg/L	1			E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Thallium	ND	mg/L		0.0002		E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Vanadium	ND	mg/L	0.1			E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	
Zinc	ND	mg/L	0.01			E200.8	06/22/11 02:27 / dck	06/16/11 13:31	ICPMS204-B_110620B : 294	12586	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11060300-006
Matrix: Aqueous

Project: Section 35 Baseline **DateReceived:** 06/15/11
Collection Date: 06/14/11 16:00 **Report Date:** 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1		A4500-H B	06/16/11 17:20 / zeg				
Conductivity	123	umhos/cm	-	1		A2510 B	06/16/11 10:49 / cmm				
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10		A2540 D	06/16/11 11:26 / cmm	06/16/11 09:53:124 (14410200)_110616A : 36		12579	
Solids, Total Dissolved TDs @ 180 C	80	mg/L	-	10		A2540 C	06/16/11 11:22 / cmm	06/16/11 11:11:124 (14410200)_110616B : 33		12581	
INORGANICS											
Alkalinity, Total as CaCO3	58	mg/L	-	4		A2320 B	06/16/11 17:20 / zeg				
Bicarbonate as HCO3	71	mg/L	-	4		A2320 B	06/16/11 17:20 / zeg				
Carbonate as CO3	ND	mg/L	-	4		A2320 B	06/16/11 17:20 / zeg				
Chloride	ND	mg/L	-	1		E300.0	06/18/11 20:10 / zeg				
Sulfate	2	mg/L	-	1		E300.0	06/18/11 20:10 / zeg				
Hardness as CaCO3	52	mg/L	-	1		A2340 B	06/23/11 07:56 / std				
METALS, DISSOLVED											
Aluminum	0.08	mg/L	-	0.03		E200.8	06/22/11 02:32 / dck				
Calcium	13	mg/L	-	1		E200.8	06/22/11 02:32 / dck				
Magnesium	5	mg/L	-	1		E200.7	06/16/11 14:40 / std				
Potassium	ND	mg/L	-	1		E200.7	06/16/11 14:40 / std				
Sodium	2	mg/L	-	1		E200.7	06/16/11 14:40 / std				
METALS, TOTAL RECOVERABLE											
Aluminum	0.15	mg/L	-	0.03		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R72000
Antimony	ND	mg/L	-	0.003		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R72000
Arsenic	ND	mg/L	-	0.003		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Barium	0.128	mg/L	-	0.005		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Beryllium	ND	mg/L	-	0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Cadmium	ND	mg/L	-	0.00008		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Calcium	13	mg/L	-	1		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Chromium	ND	mg/L	-	0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Cobalt	ND	mg/L	-	0.01		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Copper	0.002	mg/L	-	0.001		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921
Iron	0.13	mg/L	-	0.03		E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296		R71921

Report Definitions: RL - Analyte reporting limit.

100% 9/11

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11060300-006
Matrix: Aqueous

Project: Section 35 Baseline
Collection Date: 06/14/11 16:00 **Date Received:** 06/15/11
Report Date: 07/24/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L			0.0005	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Magnesium	5	mg/L			1	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Manganese	0.008	mg/L	-		0.005	E200.8	06/23/11 09:20 / dck	06/16/11 13:31	ICPMS204-B_110622A : 134	12586	
Mercury	0.0002	mg/L			0.0001	E245.1	06/24/11 13:15 / stp	06/20/11 10:51	HGCV201H_110624A : 7	12617	
Nickel	ND	mg/L			0.01	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Potassium	ND	mg/L			1	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Selenium	ND	mg/L			0.001	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Silver	ND	mg/L			0.0005	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Sodium	2	mg/L			1	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Thallium	ND	mg/L			0.0002	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Vanadium	ND	mg/L			0.1	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	
Zinc	ND	mg/L			0.01	E200.8	06/22/11 02:36 / dck	06/16/11 13:31	ICPMS204-B_110620B : 296	12586	

Aug 9/11

Report Definitions: RL - Analyte reporting limit.
ND - Not detected at the reporting limit.

MCL - Maximum contaminant level.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

July 24, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11060300 Quote ID: H645 - UBMC

Project Name: Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 6 samples for MT DEQ-Site Response on 6/15/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11060300-001	S35SW04	06/14/11 12:30	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060300-002	S35SW03	06/14/11 13:15	06/15/11	Aqueous	Same As Above
H11060300-003	S35SW01	06/14/11 14:10	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060300-004	S35SW06	06/14/11 14:10	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060300-005	S35SW02	06/14/11 14:50	06/15/11	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H11060300-006	S35SW05	06/14/11 16:00	06/15/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
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This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response**Project:** Section 35 Baseline**Sample Delivery Group:** H11060300**Report Date:** 07/24/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

Workorder Receipt Checklist



MT DEQ-Site Response

H11060300

Login completed by: Tracy L. Lorash

Date Received: 6/15/2011

Reviewed by: BL2000\sdull

Received by: elm

Reviewed Date: 6/20/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	5.5°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

S35SW06 has a collection time of 14:10 on COC - unpreserved container has time of 16:10. Logged in as 14:10 per COC and other sample bottles. TI 6/16/11.



Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: <i>NYKQ-SRS</i>	Project Name, PWS, Permit, Etc. Contact Name: <i>Shawn Franklin</i> Phone/Fax: <i>841-5033</i>	Sample Origin State: <i>NY</i>	EPA/State Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Sampler: (Please Print) <i>Aiken Environmental NYKQ-SRS</i>																																
Report Mail Address: Quote #: 14-645	Invoice Contact & Phone: <i>Shawn Franklin Hannaford</i>	Email: <i>shawn.franklin@hannaford.gov</i>	Quote/Bottle Order:																																
Special Report/Formats - ELI must be notified prior to sample submittal for the following:		<input type="checkbox"/> DW <input type="checkbox"/> A2LA <input type="checkbox"/> GSA <input type="checkbox"/> EDD/EDT(Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: <input type="checkbox"/> State: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC																																	
<table border="1"> <thead> <tr> <th colspan="4">ANALYTICAL REQUEST</th> </tr> <tr> <th>R</th> <th>U</th> <th>S</th> <th>H</th> </tr> </thead> <tbody> <tr> <td colspan="4">SEE ATTACHED</td> </tr> <tr> <td colspan="4">Normal Turnaround (TAT)</td> </tr> <tr> <td colspan="4">Number of Containers</td> </tr> <tr> <td colspan="4">Sample Type: A/W/S/V/B O</td> </tr> <tr> <td colspan="4">Air/Water/Solids/Solids/Biosolids/Other</td> </tr> <tr> <td colspan="4">Vegetation</td> </tr> </tbody> </table>				ANALYTICAL REQUEST				R	U	S	H	SEE ATTACHED				Normal Turnaround (TAT)				Number of Containers				Sample Type: A/W/S/V/B O				Air/Water/Solids/Solids/Biosolids/Other				Vegetation			
ANALYTICAL REQUEST																																			
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Sample Type: A/W/S/V/B O																																			
Air/Water/Solids/Solids/Biosolids/Other																																			
Vegetation																																			
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time																																
1	<i>535SW04</i>	<i>6/14/11</i>	<i>1230 W</i>																																
2	<i>535SW03</i>	<i>6/14/11</i>	<i>1315</i>																																
3	<i>535SW01</i>	<i>6/14/11</i>	<i>1410</i>																																
4	<i>535SW04</i>	<i>6/14/11</i>	<i>1416</i>																																
5	<i>535SW02</i>	<i>6/14/11</i>	<i>1450</i>																																
6	<i>535SW05</i>	<i>6/14/11</i>	<i>1600 W</i>																																
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In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
 This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.
 Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Analyte Limits For Quote #: H-645

Schedule Name <i>TestName</i>	Analyte	Report Limit	Units
<i>UBMC Surface Water Section 35 Baseline</i>			
Acidity, Total as CaCO ₃	Acidity, Total as CaCO ₃	4	mg/L
Alkalinity	Alkalinity, Total as CaCO ₃	4	mg/L
	Bicarbonate as HCO ₃	4	mg/L
	Carbonate as CO ₃	4	mg/L
Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
Conductivity	Conductivity	1	umhos/c
Hardness as CaCO ₃	Hardness as CaCO ₃	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Calcium	1	mg/L
	Magnesium	1	mg/L
	Potassium	1	mg/L
	Sodium	1	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved-TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

UBMC Section 35 Baseline Groundwater

SDG#: H11060355

Number of Samples: 9

Sample Matrix: Water

Applicable Analytes: (9) pH, Conductivity, TSS, TDS, Alkalinity: (Total Alkalinity, Bicarbonate, and Carbonate), Anions: (Chloride and Sulfate), Hardness, Dissolved Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), (2) Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), (7) Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, and Zn), and (8) Total Mercury by USEPA Method 245.7

Reporting Tier: 3

Applicable TOS#: N/A

Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator: *Amber Brinley* **Date Completed:** 08/10/11

Portage Review: *Jayne Lewis* **Date Completed:** 08/15/11

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Surface Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Section 35 Surface Water groundwater sample results were received by Portage, Inc. in August 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity: (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), and total Hg by USEPA Method 245.1. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 200.8, and 245.7. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Section 35 Baseline Groundwater Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35MW01	H11060355-001	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	06/16/11	06/17/11
S35MW03	H11060355-002	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/16/11	06/17/11
S35MW04	H11060355-003	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/16/11	06/17/11
S35MW07	H11060355-004	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/16/11	06/17/11

Cross-Reference for UBMC Section 35 Baseline Groundwater Water Samples

Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35MW08	H11060355-005	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/17/11	06/17/11
S35MW06	H11060355-006	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/17/11	06/17/11
S35MW02	H11060355-007	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/17/11	06/17/11
S35MW05	H11060355-008	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/17/11	06/17/11
S35MW09	H11060355-009	Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	06/17/11	06/17/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 06/16/11 and 06/17/11. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 06/20/11 within the 28-day holding time for conductivity, the 14-day holding time for alkalinity (total alkalinity, bicarbonate, and carbonate), and the 7-day holding time for TSS and TDS. The chloride and sulfate results were analyzed on 06/22/11 within the 28-day holding time. The hardness results were analyzed on 06/24/11 and 06/29/11 within the 180-day holding time. The dissolved metals were analyzed on 06/24/11 and 06/28/11 and the total recoverable metals were analyzed on 06/24/11, 06/29/11, 06/28/11, total mercury results were analyzed on 06/27/11 within the 28-day holding time for mercury and within the 180-day holding time for the remaining analytes. The total recoverable mercury result in S35SW05 was analyzed on 06/24/11 within the 28-day holding time.

The pH samples were collected on 06/16/11 and 06/17/11, received on 06/17/11, and analyzed on 06/23/11 approximately 5-6 days after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a “J-“ validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPRATION BLANKS (PB):

The PB (run ID ACCU-124 (14410200)_110620) analyzed on 06/20/11 at 15:14 for TDS exhibited a positive detection between the MDL and RL. TDS warrants no qualification due to positive detection in the method blank as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration.

The PB (run ID MAN-TECH_110620A) analyzed on 06/20/11 at 16:39 for alkalinity exhibited a positive detection between the MDL and RL. Alkalinity warrants no qualification due to positive detection in the method blank as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration.

The initial calibration blank (ICB) (run ID ICPMS204-B_110622A) analyzed on 06/23/11 at 06:28 associated with all target analytes for dissolved metals and total recoverable metals, except dissolved mercury in field sample S35MW05 and dissolved aluminum, dissolved iron, and total recoverable iron in S35MW09, exhibited positive detections between the MDL and RL for magnesium, potassium, silver, sodium, and zinc. The dissolved and total recoverable potassium

results for field sample S35MW01, the total recoverable potassium result for field sample S35MW06, the dissolved potassium result for S35MW05, dissolved sodium result for field sample S35MW07 have been qualified with a “U” validation flag as the ICB concentrations were between the MDL and RL and the reported concentrations were equal to the RL. Total recoverable zinc in field sample S35MW02 and dissolved zinc in field sample S35MW05 have been qualified with a “U” validation flag as the ICB and PB concentrations were between the MDL and RL and the reported concentrations were equal to the RL. The remaining potassium, sodium, and zinc results and all magnesium and silver results warrant no qualification due to positive detection in the PB as the reported concentrations were either non-detect or were greater than the RL and five times the PB concentration.

The PB (run ID ICPMS204-B_110622A) analyzed on 06/24/11 at 08:18 associated with all target analytes for dissolved metals and total recoverable metals, except dissolved mercury in field sample S35MW05 and dissolved aluminum, dissolved and total recoverable iron in S35MW09, exhibited a positive detection above the RL for aluminum and positive detections between the MDL and RL for antimony, barium, calcium, chromium, iron lead magnesium, manganese, vanadium, and zinc. Dissolved aluminum in field samples S35MW03, S35MW04, and S35MW07 have been qualified with a “J+” validation flag due to positive detection in the PB as the reported concentration was greater than the RL but less than ten times the PB concentration. The remaining associated aluminum results warrant no qualification due to positive detection in the PB as they were either non-detect or greater than the RL and greater than ten times the PB concentration. Total recoverable chromium in field sample S35MW09 dissolved iron in field sample S35MW04, and dissolved manganese in field sample S35MW06 have been qualified with a “U” validation flag as the PB concentrations were between the MDL and RL and the reported concentrations were equal to the RL. Total recoverable zinc in field sample S35MW02 and dissolved zinc in field sample S35MW05 have been qualified with a “U” validation flag as the ICB and PB concentrations were between the MDL and RL and the reported concentrations were equal to the RL. The remaining chromium, iron, manganese, zinc results and all antimony, calcium, barium, lead, magnesium, and vanadium warrant no qualification due to positive detection in the PB as the reported concentrations were either non-detect or were greater than the RL and five times the PB concentration.

The instrument calibration blank (ICB) (run ID ICPMS204-B_110626A) analyzed on 06/26/11 22:03 associated with dissolved mercury in field sample S35MW05, dissolved aluminum and iron in field sample S35MW09, and total recoverable iron in field sample S35MW09 exhibited a positive detections between the MDL and RL for aluminum and iron. Aluminum warrants no qualification due to positive detection in the ICB as the reported concentration was greater than the RL and greater than five times the ICB concentration. Dissolved iron in field sample S35MW09 has been qualified with a “U” validation flag due to positive detection in the ICB and

PBs and a sample concentration equal to the RL. The remaining iron result warrants no qualification due to positive detection in the ICB and PB as the reported concentration was greater than the RL and greater than five times the PB concentrations.

The PB (run ID ICPMS204-B_110626A) analyzed on 06/28/11 at 02:35 associated with dissolved mercury in field sample S35MW05, dissolved aluminum and iron in field sample S35MW09, and total recoverable iron in field sample S35MW09 exhibited a positive detection equal to the RL for aluminum and exhibited positive detections between the MDL and RL for barium, calcium, chromium, iron , magnesium, sodium, vanadium, and zinc. Also associated with these samples was PB (run ID ICPMS204B-110626A) analyzed on 06/28/11 at 01:09 which exhibited positive detections between the MDL and RL for aluminum and iron. The associated aluminum results warrant no qualification due to positive detection in the PBs as the reported concentration was greater than the RL. Dissolved iron in field sample S35MW09 has been qualified with a "U" validation flag due to positive detection in the ICB and PBs and a sample concentration equal to the RL. The remaining iron result warrants no qualification due to positive detection in the ICB and PB as the reported concentration was greater than the RL and greater than five times the PB concentrations. Barium, calcium, chromium, magnesium, sodium, vanadium, and zinc warrant no qualification as the associated samples have been assessed using PB (run ID ICPMS204-B_110622A) analyzed on 06/24/11 at 08:18.

The PB (run ID ICPMS204-B_110628A) analyzed on 06/29/11 at 23:24 associated with total recoverable aluminum in field sample S35MW09 exhibited a positive detection for aluminum between the MDL and RL. Aluminum warrants no qualification as the reported concentration for field sample S35MW09 was greater than the RL and greater than five times the PB concentration.

The initial calibration blank (ICB) (run ID SUB-C147396) for total mercury exhibited a negative detection for mercury. In the professional judgment of the validator, no qualification is warranted for total mercury as the absolute value of the blank was less than two times the RL.

The remaining ICB and PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

All ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The MS (84%) and MSD (112%) for chloride were outside of the 90-110% acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods. Chloride in field sample S35MW02 exhibited a positive detection above the MDL and has been qualified with a "J" validation flag due to high and low MS/MSD recoveries. The remaining chloride results were non-detect and have been qualified with a "UJ" validation flag due to low MS recovery.

The MS (155%) and MSD (155%) for aluminum associated with all field samples except S35MW09 were outside of the 75-125% acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods. The dissolved aluminum results for field samples S35MW03, S35MW04, and S35MW07 have been qualified with a “J+” validation flag due to positive detection in the PB above the RL and due to high MS/MSD recoveries. Total recoverable aluminum in field sample S35MW03, S35MW04, S35MW07, S35MW06, S35MW02 and both dissolved aluminum and total recoverable aluminum in field sample S35MW05 exhibited positive detections and have been qualified with a “J+” validation flag due to sample results greater than the MDL and high MS/MSD recoveries.

The MS (52%) and MSD (51%) for total mercury was outside of the 75-125% acceptance criteria prescribed by the USEPA Functional Guidelines and analytical methods. Total mercury for field samples S35MW02 and S35MW05 has been qualified with a “J-“ validation flag as the reported concentration was greater than the MDL and due to low MS/MSD recoveries. The remaining total mercury results were non-detect and have been qualified with a “UJ” validation flag due to low MS/MSD recoveries.

The remaining MS/MSD recovery RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were nine (9) water field samples included in SDG# H11060355. Nine (9) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals, eight (8) field samples were analyzed for total mercury by USEPA Method 245.7 as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

The chloride result for field sample S35MW02 has been qualified with a “J” validation flag to denote the reported result is an estimate due to high and low MS/MSD recoveries. The remaining chloride results were non-detect and have been qualified with a “UJ” validation flag to denote the reported results are non-detect, and the reported result is an estimate due to low MS recovery.

The dissolved aluminum results for field samples S35MW03, S35MW04, and S35MW07 have been qualified with a “J+” validation flag to denote the reported result is an estimate with high bias due to positive detection in the PB above the RL and high MS/MSD recoveries. Total recoverable aluminum for field sample S35MW03, S35MW04, S35MW07, S35MW06, S35MW02 and both dissolved aluminum and total recoverable aluminum for field sample S35MW05 have been qualified with a “J+” validation flag to denote the reported results are estimates with high bias due to high MS/MSD recoveries.

Total recoverable chromium for field sample S35MW09, dissolved iron for field sample S35MW04, and dissolved manganese for field sample S35MW06 have been qualified with a “U” validation flag to denote the reported concentration is non-detect due to positive detection in the PB.

Total recoverable zinc for field sample S35MW02, dissolved zinc for field sample S35MW05, and dissolved iron for field sample S35MW09 have been qualified with a “U” validation flag to denote the reported concentration is non-detect due to positive detection in the ICB and PB.

The dissolved and total recoverable potassium results for field sample S35MW01, the total recoverable potassium result for field sample S35MW06, the dissolved potassium result for S35MW05, and dissolved sodium result for field sample S35MW07 have been qualified with a “U” validation to denote the reported concentrations are non-detect due to positive detection in the ICB.

Total mercury for field samples S35MW02 and S35MW05 has been qualified with a “J-“ validation flag to denote the reported concentrations are estimates with a low bias due to low MS/MSD recoveries. The remaining total mercury results were non-detect and have been qualified with a “UJ” validation flag to denote the r reported results are non-detect, and the reported result is an estimate due to low MS/MSD recoveries.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11060355-001
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/16/11 15:50
Report Date: 07/18/11

MAN-TECH_110623B : 24

COND_110620A : 4510620A-COND-PROB

MAN-TECH_110620A : 91

COND_110620A : 12622

MAN-TECH_110620B : 44

COND_110620B : 12625

Analyses **Result** **Units** **Qualifiers** **RL** **MDL** **Method** **Analysis Date / By** **Prep Date** **Run Order** **RunID** **BatchID**

PHYSICAL PROPERTIES

pH	8.2	s.u.	-	0.1	A4500-H B	06/23/11 18:13 / zeg	06/20/11 15:43 / cmm	MAN-TECH_110623B : 24	R7125
Conductivity	271	umhos/cm	-	1	A2510 B	06/20/11 14:57 / cmm	06/20/11 11:05:124 (14410200)_110620A : 91	COND_110620A : 4510620A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mgl	-	10	A2340 D	06/20/11 16:46 / cmm	06/20/11 11:08:124 (14410200)_110620B : 44	COND_110620B : 12622	
Solids, Total Dissolved TDS @ 180 C	150	mgl	-	10	A2340 C	06/20/11 16:46 / cmm	06/20/11 11:08:124 (14410200)_110620B : 44	COND_110620B : 12625	

INORGANICS

Alkalinity, Total as CaCO3	150	mgl	-	4	A2320 B	06/20/11 20:48 / zeg	06/20/11 20:48 / zeg	MAN-TECH_110623B : 77	R71994
Bicarbonate as HCO3	190	mgl	-	4	A2320 B	06/20/11 20:48 / zeg	06/20/11 20:48 / zeg	MAN-TECH_110623B : 77	R71994
Carbonate as CO3	ND	mgl	-	4	A2320 B	06/22/11 16:55 / zeg	06/22/11 16:55 / zeg	IC102-H_110622A : 28	R72107
Chloride	ND	mgl	-	1	E300.0	06/22/11 16:55 / zeg	06/22/11 16:55 / zeg	IC102-H_110622A : 28	R72107
Sulfate	6	mgl	-	1	E300.0	06/24/11 07:59 / abb	06/24/11 07:59 / abb	CALC_110628A : 124	R72240
Hardness as CaCO3	151	mgl	-	1	A2340 B	06/24/11 07:59 / abb	06/24/11 07:59 / abb	CALC_110628A : 124	R72240

METALS, DISSOLVED

Aluminum	ND	mgl	-	0.03	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Antimony	ND	mgl	-	0.003	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Arsenic	ND	mgl	-	0.003	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Barium	0.273	mgl	-	0.005	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Beryllium	ND	mgl	-	0.001	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Cadmium	ND	mgl	-	0.00008	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Calcium	32	mgl	-	1	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Chromium	ND	mgl	-	0.001	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Cobalt	ND	mgl	-	0.01	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Copper	ND	mgl	-	0.001	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Iron	ND	mgl	-	0.05	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Lead	ND	mgl	-	0.0005	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Magnesium	17	mgl	-	1	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Manganese	ND	mgl	-	0.005	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Mercury	ND	mgl	-	0.00001	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Nickel	ND	mgl	-	0.01	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Potassium	1	mgl	-	1	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108
Selenium	ND	mgl	-	0.001	E200.8	06/24/11 07:59 / dck	06/24/11 07:59 / dck	ICPMS204-B_110622A : 432	R72108

Report **RL** - Analyte reporting limit.
Definitions:

ND - Not detected at the reporting limit.

KHg\10\11 MCL - Maximum contaminant level.



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LABORATORY ANALYTICAL REPORT

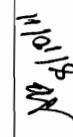
Prepared by Helena, MT Branch

Client: MTT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11060355-001
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/16/11 15:50
Report Date: 07/18/11

Analysis

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L			0.0005	E200.8	06/24/11 07:59 / dck				R72108
Sodium	2	mg/L		1		E200.8	06/24/11 07:59 / dck				R72108
Thallium	ND	mg/L			0.0002	E200.8	06/24/11 07:59 / dck				R72108
Vanadium	ND	mg/L		0.1		E200.8	06/24/11 07:59 / dck				R72108
Zinc	ND	mg/L		0.01		E200.8	06/24/11 07:59 / dck				R72108
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	06/24/11 08:04 / dck				R72108
Antimony	ND	mg/L		0.003		E200.8	06/24/11 08:04 / dck				R72108
Arsenic	ND	mg/L		0.003		E200.8	06/24/11 08:04 / dck				R72108
Barium	0.274	mg/L		0.005		E200.8	06/24/11 08:04 / dck				R72108
Beryllium	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck				R72108
Cadmium	ND	mg/L		0.00008		E200.8	06/24/11 08:04 / dck				R72108
Calcium	32	mg/L		1		E200.8	06/24/11 08:04 / dck				R72108
Chromium	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck				R72108
Cobalt	ND	mg/L		0.01		E200.8	06/24/11 08:04 / dck				R72108
Copper	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck				R72108
Iron	ND	mg/L		0.03		E200.8	06/24/11 08:04 / dck				R72108
Lead	ND	mg/L		0.0005		E200.8	06/24/11 08:04 / dck				R72108
Magnesium	17	mg/L		1		E200.8	06/24/11 08:04 / dck				R72108
Manganese	ND	mg/L		0.005		E200.8	06/24/11 08:04 / dck				R72108
Mercury	ND	mg/L		0.00001		E200.8	06/24/11 08:04 / dck				R72108
Nickel	ND	mg/L		0.01		E200.8	06/24/11 08:04 / dck				R72108
Potassium	1	mg/L		1		E200.8	06/24/11 08:04 / dck				R72108
Selenium	ND	mg/L		0.001		E200.8	06/24/11 08:04 / dck				R72108
Silver	ND	mg/L		0.0005		E200.8	06/24/11 08:04 / dck				R72108
Sodium	2	mg/L		1		E200.8	06/24/11 08:04 / dck				R72108
Thallium	ND	mg/L		0.0002		E200.8	06/24/11 08:04 / dck				R72108
Vanadium	ND	mg/L		0.1		E200.8	06/24/11 08:04 / dck				R72108
Zinc	ND	mg/L		0.01		E200.8	06/24/11 08:04 / dck				R72108

Report RL - Analyte reporting limit.
Definitions:  MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11060355-002
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/16/11 17:50
Report Date: 07/18/11

MAN-TECH

COND

IC102-H

IC102-H

CALC

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.	-	0.1	A4500-H	B	06/23/11 18:21 / zeg		MAN-TECH_110623B : 26	R72125	
Conductivity	310	umhos/cm		1	A2510	B	06/20/11 15:44 / cmm		COND_110620A : 4610620A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	60	mg/L		10	A2540	D	06/20/11 14:57 / cmm	06/20/11 10:58:124 (14410200)_110620A : 92	12622	12622	
Solids, Total Dissolved TDS @ 180 C	162	mg/L		10	A2540	C	06/20/11 15:22 / cmm	06/20/11 11:08:124 (14410200)_110620B : 45	12625	12625	
INORGANICS											
Alkalinity, Total as CaCO ₃	170	mg/L		4	A2320	B	06/20/11 20:55 / zeg		MAN-TECH_110620A : 78	R71994	
Bicarbonate as HCO ₃	210	mg/L		4	A2320	B	06/20/11 20:55 / zeg		MAN-TECH_110620A : 78	R71994	
Carbonate as CO ₃	ND	mg/L		4	A2320	B	06/20/11 20:55 / zeg		MAN-TECH_110620A : 78	R71994	
Chloride	ND	mg/L		1	E300	0.0	06/22/11 17:07 / zeg		IC102-H_110622A : 29	R72107	
Sulfate	4	mg/L		1	E300	0.0	06/22/11 17:07 / zeg		IC102-H_110622A : 29	R72107	
Hardness as CaCO ₃	151	mg/L		1	A2340	B	06/24/11 08:09 / abb		CALC_110628A : 135	R72240	
METALS, DISSOLVED											
Aluminum	0.04	mg/L		0.03	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Antimony	ND	mg/L		0.003	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Arsenic	ND	mg/L		0.003	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Barium	0.326	mg/L		0.005	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Beryllium	ND	mg/L		0.001	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Cadmium	ND	mg/L		0.00008	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Calcium	43	mg/L		1	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Chromium	0.002	mg/L		0.001	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Cobalt	ND	mg/L		0.01	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Copper	ND	mg/L		0.001	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Iron	ND	mg/L		0.05	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Lead	ND	mg/L		0.0005	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Magnesium	10	mg/L		1	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Manganese	0.066	mg/L		0.005	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Mercury	ND	mg/L		0.00001	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Nickel	ND	mg/L		0.01	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Potassium	2	mg/L		1	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Selenium	ND	mg/L		0.001	E200	8	06/24/11 08:09 / dck		ICPMS204-B_110622A : 434	R72108	
Report RL - Analyte reporting limit. Definitions: MCL - Maximum contaminant level.											
ND - Not detected at the reporting limit.											

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11060355-002
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/16/11 17:50
Report Date: 07/18/11

DateReceived: 06/17/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 08:09 / dck	06/21/11 09:05	ICPMS204-B_110622A : 434	R72108	C_30276
Sodium	11	mg/L	1		E200.8		06/24/11 08:09 / dck	06/21/11 09:05	ICPMS204-B_110622A : 434	R72108	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 08:09 / dck	06/21/11 09:05	ICPMS204-B_110622A : 434	R72108	
Vanadium	ND	mg/L	0.1		E200.8		06/24/11 08:09 / dck	06/21/11 09:05	ICPMS204-B_110622A : 434	R72108	
Zinc	ND	mg/L	0.01		E200.8		06/24/11 08:09 / dck	06/21/11 09:05	ICPMS204-B_110622A : 434	R72108	
METALS, TOTAL											
Mercury	ND	ng/L	UΣ	10.0	E245.7		06/27/11 13:38 / eli-c	06/27/11 10:25	SUB-C147396 : 31		
METALS, TOTAL RECOVERABLE											
Aluminum	1.36	mg/L	Σ+	0.03	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Antimony	ND	mg/L		0.003	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Barium	0.361	mg/L		0.005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Cadmium	0.00010	mg/L		0.00008	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Calcium	44	mg/L	1		E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Chromium	0.004	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Copper	0.003	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Iron	1.24	mg/L		0.03	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Lead	0.0016	mg/L		0.0005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Magnesium	11	mg/L	1		E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Manganese	0.145	mg/L		0.005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Nickel	ND	mg/L		0.01	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Potassium	2	mg/L		1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Selenium	ND	mg/L		0.001	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Silver	ND	mg/L		0.0005	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Sodium	12	mg/L		1	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Vanadium	ND	mg/L	0.1		E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	
Zinc	ND	mg/L	0.01		E200.8		06/24/11 08:54 / dck	06/21/11 09:05	ICPMS204-B_110622A : 444	12644	

Report RL - Analyte reporting limit.
Definitions:

ΑΥΓΟΙΙ ΜCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35MW04
Lab ID: H1060355-003
Matrix: Aqueous

Project: UBMIC
Collection Date: 06/16/11 18:34
Report Date: 07/18/11

Analyses

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-				A450-H B	06/23/11 18:28 / zeg			R72125
Conductivity	216	umhos/cm	-	0.1			A2510 B	06/20/11 15:45 / cmm	COND_110620A_4710620A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	154	mg/L	-	1			A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58-124 (14410200)_110620A_93	12622	
Solids, Total Dissolved TDS @ 180 C	170	mg/L	-	10			A2540 C	06/20/11 15:24 / cmm	06/20/11 11:08-124 (14410200)_110620B_46	12625	
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L	-	4			A2320 B	06/20/11 21:02 / zeg	MAN-TECH_110620A_28		R71994
Bicarbonate as HCO ₃	140	mg/L	-	4			A2320 B	06/20/11 21:02 / zeg	MAN-TECH_110620A_79		R71994
Carbonate as CO ₃	ND	mg/L	-	4			A2320 B	06/20/11 21:02 / zeg	MAN-TECH_110620A_79		R71994
Chloride	ND	mg/L	-	1			E300.0	06/22/11 17:42 / zeg	IC102-H_110622A_32		R72107
Sulfate	ND	mg/L	-	1			E300.0	06/22/11 17:42 / zeg	IC102-H_110622A_32		R72107
Hardness as CaCO ₃	113	mg/L	-	1			A2340 B	06/24/11 09:16 / abb	CALC_110628A_146		R72240
METALS, DISSOLVED											
Magnesium	0.07	mg/L	+	0.03			E200.8	06/24/11 09:16 / dck	ICPMS204-B_110622A_449		R72108
Antimony	ND	mg/L	-	0.003			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Arsenic	ND	mg/L	-	0.003			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Barium	0.283	mg/L	-	0.005			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Beryllium	ND	mg/L	-	0.001			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Cadmium	ND	mg/L	-	0.00008			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Calcium	34	mg/L	-	1			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Chromium	ND	mg/L	-	0.001			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Cobalt	ND	mg/L	-	0.01			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Copper	0.001	mg/L	-	0.001			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Iron	0.05	mg/L	-	0.05			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Lead	ND	mg/L	-	0.0005			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Manganese	7	mg/L	-	1			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Magnesium	0.023	mg/L	-	0.005			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Manganese	ND	mg/L	-	0.00001			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Mercury	ND	mg/L	-	0.01			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Nickel	2	mg/L	-	1			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Potassium	ND	mg/L	-	0.001			E200.8	06/24/11 09:16 / dck	CPMS204-B_110622A_449		R72108
Selenium											

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11060355-003
Matrix: Aqueous

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11060355-003
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Sodium	2	mg/L		1	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 09:16 / dck		ICPMS204-B_110622A : 449		R72108
METALS, TOTAL											
Mercury	ND	ng/L	UL	10.0	E245.7		06/27/11 13:41 / eli-c	06/27/11 10:25	SUB-C147396 : 24		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	2.64	mg/L	3+	0.03	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Barium	0.352	mg/L		0.005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Cadmium	0.00015	mg/L		0.00008	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Calcium	35	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Chromium	0.022	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Copper	0.005	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Iron	3.29	mg/L		0.03	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Lead	0.0029	mg/L		0.0005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Magnesium	7	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Manganese	0.181	mg/L		0.005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Potassium	2	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Sodium	2	mg/L		1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644
Zinc	0.02	mg/L		0.01	E200.8		06/24/11 09:21 / dck	06/21/11 09:05	ICPMS204-B_110622A : 450		12644

Report Definitions:
 RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
 Client Sample ID S35MW07
 Lab ID: H11060355-004
 Matrix: Aqueous

Prepared by Helena, MT Branch

Project: UBM/C
 Collection Date: 06/16/11 18:34
 Report Date: 07/18/11
 DateReceived: 06/17/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RundID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A4500-H B	06/23/11 18:35 / zeg					R72125
Conductivity	216	umhos/cm		1	A2510 B	06/20/11 15:46 / cmm					COND_110620A : 4810620A-COND-PROB
Solids, Total Suspended TSS @ 105 C	142	mg/L		10	A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58-124	(14410200)_110620A : 94			12622
Solids, Total Dissolved TDS @ 180 C	152	mg/L		10	A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08-124	(14410200)_110620B : 47			12625
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L		4	A2320 B	06/20/11 21:09 / zeg					MAN-TECH_110623B : 30
Bicarbonate as HCO ₃	140	mg/L		4	A2320 B	06/20/11 21:09 / zeg					MAN-TECH_110620A : 80
Carbonate as CO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:09 / zeg					MAN-TECH_110620A : 80
Chloride	ND	mg/L		1	E300.0	06/22/11 17:53 / zeg					IC102-H_110622A : 33
Sulfate	ND	mg/L		1	E300.0	06/22/11 17:53 / zeg					IC102-H_110622A : 33
Hardness as CaCO ₃	111	mg/L		1	A2340 B	06/24/11 09:44 / abb					CALC_110628A : 157
METALS, DISSOLVED											
Aluminum	0.06	mg/L	-	0.03	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Antimony	ND	mg/L		0.003	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Arsenic	ND	mg/L		0.003	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Barium	0.281	mg/L		0.005	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Beryllium	ND	mg/L		0.001	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Cadmium	ND	mg/L		0.00008	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Calcium	34	mg/L		1	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Chromium	ND	mg/L		0.001	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Cobalt	ND	mg/L		0.01	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Copper	0.001	mg/L		0.001	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Iron	ND	mg/L		0.05	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Lead	ND	mg/L		0.0005	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Magnesium	6	mg/L		1	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Manganese	0.026	mg/L		0.005	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Mercury	ND	mg/L		0.00001	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Nickel	ND	mg/L		0.01	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Potassium	2	mg/L		1	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Selenium	ND	mg/L		0.001	E200.8	06/24/11 09:44 / dck					ICPMS204-B_110622A : 455
Report Definitions:	RL - Analyte reporting limit.		AB₈10 14	MCL - Maximum contaminant level.							
				ND - Not detected at the reporting limit.							

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11060355-004
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/16/11 18:34
Report Date: 07/18/11

METALS, DISSOLVED

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
Silver	ND	mgl	U	0.0005	E200.8	E200.8	06/24/11 09:44 / dck	06/24/11 09:44 / dck	ICPMS204-B_110622A : 455	R72108	
Sodium	1	mgl		1	E200.8	E200.8	06/24/11 09:44 / dck	06/24/11 09:44 / dck	ICPMS204-B_110622A : 455	R72108	
Thallium	ND	mgl		0.0002	E200.8	E200.8	06/24/11 09:44 / dck	06/24/11 09:44 / dck	ICPMS204-B_110622A : 455	R72108	
Vanadium	ND	mgl		0.1	E200.8	E200.8	06/24/11 09:44 / dck	06/24/11 09:44 / dck	ICPMS204-B_110622A : 455	R72108	
Zinc	ND	mgl		0.01	E200.8	E200.8	06/24/11 09:44 / dck	06/24/11 09:44 / dck	ICPMS204-B_110622A : 455	R72108	
METALS, TOTAL											
Mercury	ND	ng/L	U-T	10.0	E245.7	E245.7	06/27/11 13:43 / eli-c	06/27/11 10:25	SUB-C147396 : 26	C_30276	
METALS, TOTAL RECOVERABLE											
Aluminum	2.58	mgl	T+	0.03	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Antimony	ND	mgl		0.003	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Arsenic	ND	mgl		0.003	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Barium	0.344	mgl		0.005	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Beryllium	ND	mgl		0.001	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Cadmium	0.00015	mgl		0.00008	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Calcium	35	mgl	1	E200.8	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Chromium	0.022	mgl		0.001	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Cobalt	ND	mgl		0.01	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Copper	0.005	mgl		0.001	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Iron	3.25	mgl		0.03	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Lead	0.0028	mgl		0.0005	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Magnesium	7	mgl	1	E200.8	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Manganese	0.176	mgl		0.005	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Nickel	ND	mgl		0.01	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Potassium	2	mgl		1	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Selenium	ND	mgl		0.001	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Silver	ND	mgl		0.0005	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Sodium	2	mgl		1	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Thallium	ND	mgl		0.0002	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Vanadium	ND	mgl		0.1	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	
Zinc	0.02	mgl		0.01	E200.8	E200.8	06/24/11 09:48 / dck	06/21/11 09:05	ICPMS204-B_110622A : 456	12644	

Report Definitions:
RL - Analyte reporting limit.
Definitions:

*AB
8/10/11*

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
Client Sample ID S35MW08
Lab ID: H11060355-005
Matrix: Aqueous

Prepared by Helena, MT Branch

Project: UBM/C
Collection Date: 06/17/11 07:18
Report Date: 07/18/11
Date Received: 06/17/11

PHYSICAL PROPERTIES

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
pH	5.5	s.u.	-	0.1	A4500-H B	06/23/11 18:39 / zeg					R72125
Conductivity	1	umhos/cm	-	1	A2510 B	06/20/11 15:47 / cmm					COND_110620A : 4910620ACOND-PROB
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10	A2540 D	06/20/11 14:58 / cmm	06/20/11 10:58:124 (14410200)_110620A:95				12622
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	-	10	A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08:124 (14410200)_110620B:48				12625

INORGANICS

Alkalinity, Total as CaCO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:14 / zeg					MAN-TECH_110623B : 32
Bicarbonate as HCO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:14 / zeg					COND_110620A : 4910620ACOND-PROB
Carbonate as CO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:14 / zeg					MAN-TECH_110620A : 95
Chloride	ND	mg/L	-	1	E3000	06/22/11 18:05 / zeg					IC102-H_110622A:34
Sulfate	ND	mg/L	-	1	E3000	06/22/11 18:05 / zeg					IC102-H_110622A:34
Hardness as CaCO ₃	ND	mg/L	-	1	A2340 B	06/29/11 15:39 / abd					WATERCALC_110629A : 18

METALS, DISSOLVED

Aluminum	ND	mg/L	-	0.03	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Antimony	ND	mg/L	-	0.003	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Arsenic	ND	mg/L	-	0.003	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Barium	ND	mg/L	-	0.005	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Beryllium	ND	mg/L	-	0.001	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Cadmium	ND	mg/L	-	0.00008	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Calcium	ND	mg/L	-	1	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Chromium	ND	mg/L	-	0.001	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Cobalt	ND	mg/L	-	0.01	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Copper	ND	mg/L	-	0.001	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Iron	ND	mg/L	-	0.05	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Lead	ND	mg/L	-	0.0005	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Magnesium	ND	mg/L	-	1	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Manganese	ND	mg/L	-	0.005	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Mercury	ND	mg/L	-	0.00001	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Nickel	ND	mg/L	-	0.01	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Potassium	ND	mg/L	-	1	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457
Selenium	ND	mg/L	-	0.001	E200.8	06/24/11 09:53 / dck					ICPMS204-B_110622A:457

Report RL - Analyte reporting limit.
Definitions:

ND - Not detected at the reporting limit.
MCL - Maximum contaminant level.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11060355-005
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/17/11 07:18
Report Date: 07/18/11

DateReceived: 06/17/11

Project: UBM/C
Collection Date: 06/17/11 07:18
Report Date: 07/18/11

DateReceived: 06/17/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457	R72108	
Sodium	ND	mg/L	1		E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457	R72108	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457	R72108	
Vanadium	ND	mg/L	0.1		E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457	R72108	
Zinc	ND	mg/L	0.01		E200.8		06/24/11 09:53 / dck		ICPMS204-B_110622A : 457	R72108	
METALS, TOTAL											
Mercury	ND	ng/L	U/T	10.0		E245.7	06/27/11 13:46 / ell-c	06/27/11 10:25	SUB-C147396 : 25	C_30276	
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Antimony	ND	mg/L		0.003	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Barium	ND	mg/L		0.005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Cadmium	ND	mg/L		0.00008	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Calcium	ND	mg/L	1		E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Chromium	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Copper	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Iron	ND	mg/L		0.03	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Lead	ND	mg/L		0.0005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Magnesium	ND	mg/L	1		E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Manganese	ND	mg/L		0.005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Mercury	ND	mg/L		0.00001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Nickel	ND	mg/L		0.01	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Potassium	ND	mg/L		1	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Selenium	ND	mg/L		0.001	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Silver	ND	mg/L		0.0005	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Sodium	ND	mg/L	1		E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Vanadium	ND	mg/L	0.1		E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458	R72108	
Report Definitions:	RL - Analyte reporting limit.										
	MCL - Maximum contaminant level.										
	A35/10/11										
	ND - Not detected at the reporting limit.										

Report Definitions:

Definitions:

A35/10/11

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35MW08
Lab ID: H11060355-005
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/17/11 07:18
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
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METALS, TOTAL RECOVERABLE

Zinc	ND	mg/L		0.01	E200.8		06/24/11 09:57 / dck		ICPMS204-B_110622A : 458		R72108
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Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11060355-006
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 08:15
Report Date: 07/18/11

Analyses

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A4500-H B		06/23/11 18:51 / zeg		MAN-TECH_110623B : 36	R72125	
Conductivity	306	umhos/cm		1	A2510 B		06/20/11 15:48 / cmm		COND_110620A : 5010620A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	14	mg/L		10	A2540 D		06/20/11 14:58 / cmm	06/20/11 10:58-124 (14410200)_110620A : 96	12622		
Solids, Total Dissolved TDS @ 180 C	162	mg/L		10	A2540 C		06/20/11 15:25 / cmm	06/20/11 11:08-124 (14410200)_110620B : 49	12625		
INORGANICS											
Alkalinity, Total as CaCO3	170	mg/L		4	A2320 B		06/20/11 21:21 / zeg		MAN-TECH_110620A : 82	R7194	
Bicarbonate as HCO3	210	mg/L		4	A2320 B		06/20/11 21:21 / zeg		MAN-TECH_110620A : 82	R7194	
Carbonate as CO3	ND	mg/L	u.s	4	A2320 B		06/20/11 21:21 / zeg		MAN-TECH_110620A : 82	R7194	
Chloride	ND	mg/L		1	E300.0		06/22/11 18:17 / zeg		IC102-H_110622A : 35	R72107	
Sulfate	ND	mg/L		1	E300.0		06/22/11 18:17 / zeg		IC102-H_110622A : 35	R72107	
Hardness as CaCO3	161	mg/L		1	A2340 B		06/24/11 10:02 / abb		CALC_110628A : 179	R72240	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Antimony	ND	mg/L		0.003	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Barium	0.726	mg/L		0.005	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Cadmium	ND	mg/L		0.00008	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Calcium	45	mg/L		1	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Chromium	ND	mg/L		0.001	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Copper	0.001	mg/L		0.001	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Iron	ND	mg/L		0.05	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Lead	ND	mg/L		0.0005	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Magnesium	12	mg/L		1	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Manganese	0.005	mg/L		0.005	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Mercury	0.00002	mg/L		0.00001	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Nickel	ND	mg/L		0.01	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Potassium	ND	mg/L		1	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Selenium	ND	mg/L		0.001	E200.8		06/24/11 10:02 / dck		ICPMS204-B_110622A : 459	R72108	
Report RL - Analyte reporting limit. Definitions: <i>X10^-10/11</i>											
MCL - Maximum contaminant level. ND - Not detected at the reporting limit.											

LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11060355-006
Matrix: Aqueous

Prepared by Helena, MT Branch

Project: UBM/C
Collection Date: 06/17/11 08:15
Report Date: 07/18/11

Prepared by Helena, MT Branch

MT DEQ-Site Response

S35MW06

H11060355-006
 Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:02 / dck	06/21/11 09:05	ICPMS204-B_110622A : 459	R72108	
Sodium	4	mg/L	1		E200.8		06/24/11 10:02 / dck	06/21/11 09:05	ICPMS204-B_110622A : 459	R72108	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:02 / dck	06/21/11 09:05	ICPMS204-B_110622A : 459	R72108	
Vanadium	ND	mg/L	0.1		E200.8		06/24/11 10:02 / dck	06/21/11 09:05	ICPMS204-B_110622A : 459	R72108	
Zinc	ND	mg/L	0.01		E200.8		06/24/11 10:02 / dck	06/21/11 09:05	ICPMS204-B_110622A : 459	R72108	
METALS, TOTAL											
Mercury	ND	ng/L	U.S.	10.0	E245.7		06/27/11 13:48 / ell-c	06/27/11 10:25	SUB-C147396 : 30	C_30276	
METALS, TOTAL RECOVERABLE											
Aluminum	0.54	mg/L	+	0.03	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Antimony	ND	mg/L		0.003	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Barium	0.772	mg/L		0.005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Cadmium	ND	mg/L		0.00008	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Calcium	45	mg/L	1		E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Chromium	0.002	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Copper	0.003	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Iron	0.56	mg/L		0.03	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Lead	0.0006	mg/L		0.0005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Magnesium	13	mg/L	1		E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Manganese	0.020	mg/L		0.005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Nickel	ND	mg/L	1	0.01	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Potassium	ND	mg/L	U	1	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Selenium	ND	mg/L		0.001	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Sodium	5	mg/L	1		E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Vanadium	ND	mg/L	0.1		E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	
Zinc	ND	mg/L	0.01		E200.8		06/24/11 10:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 460	12644	

Report Definitions:
 RL - Analyte reporting limit.

MCL - Maximum contaminant level.

APG 10/11

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11060355-007
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/17/11 10:04
Report Date: 07/18/11

Project: UBM/C

Collection Date: 06/17/11 10:04

Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RundID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1	A4500-H B	06/23/11 18:58 / zeg					R77125
Conductivity	444	umhos/cm	-	1	A2510 B	06/20/11 15:49 / cmm					COND_110620A : 5110620ACOND-PROB
Solids, Total Suspended TSS @ 105 C	58	mg/L	-	10	A2540 D	06/20/11 15:01 / cmm	06/20/11 14:53 :24	(14410200)	110620A : 99		12631
Solids, Total Dissolved TDS @ 180 C	254	mg/L	-	10	A2540 C	06/20/11 15:25 / cmm	06/20/11 11:08 :24	(14410200)	110620B : 50		12625
INORGANICS											
Alkalinity, Total as CaCO ₃	240	mg/L	-	4	A2320 B	06/20/11 21:29 / zeg					MAN-TECH_110623B : 38
Bicarbonate as HCO ₃	300	mg/L	-	4	A2320 B	06/20/11 21:29 / zeg					MAN-TECH_110620A : 83
Carbonate as CO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:29 / zeg					MAN-TECH_110620A : 83
Chloride	2	mg/L	-	1	E300.0	06/22/11 18:28 / zeg					IC102-H_110622A : 36
Sulfate	6	mg/L	-	1	E300.0	06/22/11 18:28 / zeg					IC102-H_110622A : 36
Hardness as CaCO ₃	221	mg/L	-	1	A2340 B	06/24/11 10:11 / abb					CALC_C_110628A : 190
METALS, DISSOLVED											
Aluminum	ND	mg/L	-	0.03	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Antimony	ND	mg/L	-	0.003	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Arsenic	ND	mg/L	-	0.003	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Barium	0.853	mg/L	-	0.005	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Beryllium	ND	mg/L	-	0.001	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Cadmium	ND	mg/L	-	0.00008	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Calcium	64	mg/L	-	1	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Chromium	ND	mg/L	-	0.001	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Cobalt	ND	mg/L	-	0.01	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Copper	ND	mg/L	-	0.001	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Iron	ND	mg/L	-	0.05	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Lead	ND	mg/L	-	0.0005	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Magnesium	15	mg/L	-	1	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Manganese	ND	mg/L	-	0.005	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Mercury	ND	mg/L	-	0.00001	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Nickel	ND	mg/L	-	0.01	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Potassium	2	mg/L	-	1	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Selenium	ND	mg/L	-	0.001	E200.8	06/24/11 10:11 / dck					ICPMS204-B_110622A : 461
Report Definitions:	RL - Analyte reporting limit.										ND - Not detected at the reporting limit.

#311011

MCL - Maximum contaminant level.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
 Client Sample ID S35MW02
 Lab ID: H11060355-007
 Matrix: Aqueous

Prepared by Helena, MT Branch

Project: UBMC
 Collection Date: 06/17/11 10:04
 Report Date: 07/18/11

DateReceived: 06/17/11

Run Order

BatchID

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	Rund ID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:11 / dck	06/24/11 10:16 / dck	ICPMS204-B_110622A : 461	R72108	
Sodium	4	mg/L		1	E200.8		06/24/11 10:11 / dck	06/24/11 10:16 / dck	ICPMS204-B_110622A : 461	R72108	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:11 / dck	06/24/11 10:16 / dck	ICPMS204-B_110622A : 461	R72108	
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 10:11 / dck	06/24/11 10:16 / dck	ICPMS204-B_110622A : 461	R72108	
Zinc	ND	mg/L		0.01	E200.8		06/24/11 10:11 / dck	06/24/11 10:16 / dck	ICPMS204-B_110622A : 461	R72108	
METALS, TOTAL											
Mercury	81.6	ng/L		10.0	E245.7		06/27/11 14:00 / eli-c	06/27/11 10:25	SUB-C147396 : 34	C_30276	
METALS, TOTAL RECOVERABLE											
Aluminum	0.53	mg/L	+	0.03	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Antimony	ND	mg/L		0.003	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Barium	0.902	mg/L		0.005	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Cadmium	0.00012	mg/L		0.00008	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Calcium	66	mg/L		1	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Chromium	0.002	mg/L		0.001	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Copper	0.004	mg/L		0.001	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Iron	1.19	mg/L		0.03	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Lead	0.0023	mg/L		0.0005	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Magnesium	15	mg/L		1	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Manganese	0.037	mg/L		0.005	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Nickel	ND	mg/L		0.01	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Potassium	2	mg/L		1	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Selenium	ND	mg/L		0.001	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Silver	0.0011	mg/L		0.0005	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Sodium	4	mg/L		1	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	
Zinc	0.01	mg/L	L	0.01	E200.8		06/24/11 10:16 / dck	06/21/11 09:05	ICPMS204-B_110622A : 462	12644	

Report RL - Analyte reporting limit.
 Definitions:

MCL - Maximum contaminant level.

AB
8/10/11

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
Client Sample ID: S35MW05
Lab ID: H11060355-008
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 10:38
Report Date: 07/18/11

Prepared by Helena, MT Branch

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RundID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.2	s.u.	-	0.1	A4500-H B	06/23/11 19:04 / zeg					R72125
Conductivity	58	umhos/cm		1	A2510 B	06/20/11 15:50 / cmm					COND_110620A_5210620A-COND-PROB
Solids, Total Suspended TSS @ 105 C	184	mg/L		10	A2540 D	06/20/11 15:01 / cmm	06/20/11 14:53:124 (14410200)_110620A : 101				12631
Solids, Total Dissolved TDS @ 180 C	136	mg/L		10	A2540 C	06/20/11 15:26 / cmm	06/20/11 14:56:124 (14410200)_110620B : 53				12632
INORGANICS											
Alkalinity, Total as CaCO ₃	28	mg/L		4	A2320 B	06/20/11 21:35 / zeg					MAN-TECH_110620A : 84
Bicarbonate as HCO ₃	34	mg/L		4	A2320 B	06/20/11 21:35 / zeg					MAN-TECH_110620A : 84
Carbonate as CO ₃	ND	mg/L	U-T	4	A2320 B	06/20/11 21:35 / zeg					MAN-TECH_110620A : 84
Chloride	ND	mg/L		1	E300.0	06/22/11 19:03 / zeg					IC102-H_110622A : 39
Sulfate	ND	mg/L		1	E300.0	06/22/11 19:03 / zeg					IC102-H_110622A : 39
Hardness as CaCO ₃	27	mg/L		1	A2340 B	06/24/11 10:20 / abb					CALC_110620A : 201
METALS, DISSOLVED											
Aluminum	1.16	mg/L	-	0.03	E200.8	06/24/11 10:20 / dck					R72108
Antimony	ND	mg/L		0.003	E200.8	06/24/11 10:20 / dck					R72108
Arsenic	ND	mg/L		0.003	E200.8	06/24/11 10:20 / dck					R72108
Barium	0.105	mg/L		0.005	E200.8	06/24/11 10:20 / dck					R72108
Beryllium	ND	mg/L		0.001	E200.8	06/24/11 10:20 / dck					R72108
Cadmium	0.00012	mg/L		0.00008	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Calcium	8	mg/L		1	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Chromium	ND	mg/L		0.001	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Cobalt	ND	mg/L		0.01	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Copper	0.004	mg/L		0.001	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Iron	0.59	mg/L		0.05	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Lead	0.0012	mg/L		0.0005	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Magnesium	2	mg/L		1	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Manganese	0.039	mg/L		0.005	E200.8	06/24/11 10:20 / dck					ICPMS204-B_110622A : 463
Mercury	ND	mg/L		0.00001	E200.8	06/28/11 02:17 / dck					R72189
Nickel	ND	mg/L		0.01	E200.8	06/24/11 10:20 / dck					R72108
Potassium	1	mg/L	U	1	E200.8	06/24/11 10:20 / dck					R72108
Selenium	ND	mg/L		0.001	E200.8	06/24/11 10:20 / dck					R72108
Report Definitions:	RL - Analyte reporting limit. Definitions: <i>128/10/11</i>										MCL - Maximum contaminant level.
	ND - Not detected at the reporting limit.										

LABORATORY ANALYTICAL REPORT

Client: MT DEQ Site Response
Client Sample ID: S35MW05
Lab ID: H11060355-008
Matrix: Aqueous

Project: UBMC
Collection Date: 06/17/11 10:38
Report Date: 07/18/11

Prepared by Helena, MT Branch

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	Rund	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Sodium	2	mg/L		1	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
Zinc	0.01	mg/L	U	0.01	E200.8		06/24/11 10:20 / dck		ICPMS204-B_110622A : 463		R72108
METALS, TOTAL											
Mercury	17.9	ng/L		10.0	E245.7		06/27/11 14:03 / eli-c	06/27/11 10:25	SUB-C147396:32		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	5.13	mg/L	5+	0.03	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Antimony	ND	mg/L		0.003	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Barium	0.195	mg/L		0.005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Cadmium	0.00013	mg/L		0.00008	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Calcium	9	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Chromium	0.018	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Copper	0.011	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Iron	4.89	mg/L		0.03	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Lead	0.0041	mg/L		0.0005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Magnesium	3	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Manganese	0.105	mg/L		0.005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Potassium	2	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Sodium	2	mg/L		1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644
Zinc	0.03	mg/L		0.01	E200.8		06/24/11 11:07 / dck	06/21/11 09:05	ICPMS204-B_110622A : 473		12644

Report Definitions: RL - Analyte reporting limit.

10/10/11

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: MT DEQ-Site Response
Client Sample ID S35MW09
Lab ID: H11060355-009
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/17/11 11:05
Report Date: 07/18/11

Prepared by Helena, MT Branch

Analyses

	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
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PHYSICAL PROPERTIES

pH	5.9	s.u.	-	0.1	A4500-H B	06/23/11 19:09 / zeg					R72125
Conductivity	2	umhos/cm	-	1	A2510 B	06/20/11 15:52 / cmm	COND_110620A : 5410620A-COND-PROB				R72125
Solids, Total Suspended TSS @ 105 C	ND	mg/L	-	10	A2540 D	06/20/11 15:01 / cmm	(14410200)_110620A : 102	12631			R72125
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	-	10	A2540 C	06/20/11 15:26 / cmm	(14410200)_110620B : 55	12632			R72125

INORGANICS

Alkalinity, Total as CaCO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:40 / zeg					R71994
Bicarbonate as HCO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:40 / zeg	MAN-TECH_110620A : 85				R71994
Carbonate as CO ₃	ND	mg/L	-	4	A2320 B	06/20/11 21:40 / zeg	MAN-TECH_110620A : 85				R71994
Chloride	ND	mg/L	-	1	E300.0	06/22/11 19:15 / zeg	IC102-H_110622A : 40				R72107
Sulfate	ND	mg/L	-	1	E300.0	06/22/11 19:15 / zeg	IC102-H_110622A : 40				R72107
Hardness as CaCO ₃	ND	mg/L	-	1	A2340 B	06/29/11 15:39 / abb	WATERCALC_110629A : 19				R72279

METALS, DISSOLVED

Aluminum	0.06	mg/L	-	0.03	E200.8	06/28/11 02:26 / dck					R72189
Antimony	ND	mg/L	-	0.003	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Arsenic	ND	mg/L	-	0.003	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Barium	ND	mg/L	-	0.005	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Beryllium	ND	mg/L	-	0.001	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Cadmium	0.00011	mg/L	-	0.00008	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Calcium	ND	mg/L	-	1	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Chromium	ND	mg/L	-	0.001	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Cobalt	ND	mg/L	-	0.01	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Copper	ND	mg/L	-	0.001	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Iron	0.05	mg/L	-	0.05	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Lead	ND	mg/L	-	0.0005	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Magnesium	ND	mg/L	-	1	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Manganese	ND	mg/L	-	0.005	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Mercury	ND	mg/L	-	0.00001	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Nickel	ND	mg/L	-	0.01	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Potassium	ND	mg/L	-	1	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108
Selenium	ND	mg/L	-	0.001	E200.8	06/24/11 11:11 / dck	ICPMs204-B_110622A : 474				R72108

Report RL - Analyte reporting limit.
Definitions:

113/10/11

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11060355-009
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8		06/24/11 11:11 / dck				R72108
Sodium	ND	mg/L		1	E200.8		06/24/11 11:11 / dck				R72108
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 11:11 / dck				R72108
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 11:11 / dck				R72108
Zinc	ND	mg/L		0.01	E200.8		06/24/11 11:11 / dck				R72108
- The dissolved metals were confirmed with duplicate analysis.											
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7		06/27/11 14:05 / eli-c	06/27/11 10:25	SUB-C147396 : 29		C_30276
METALS, TOTAL RECOVERABLE											
Aluminum	0.12	mg/L		0.03	E200.8		06/29/11 23:42 / dck	06/28/11 15:28	ICPMS204-B_110622A : 448		12741
Antimony	ND	mg/L		0.003	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Arsenic	ND	mg/L		0.003	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Barium	ND	mg/L		0.005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Beryllium	ND	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Cadmium	0.00492	mg/L		0.00008	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Calcium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Chromium	0.001	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Cobalt	ND	mg/L		0.01	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Copper	ND	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Iron	0.11	mg/L		0.03	E200.8		06/28/11 02:58 / dck	06/21/11 09:05	ICPMS204-B_110625A : 397		12644
Lead	ND	mg/L		0.0005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Magnesium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Manganese	ND	mg/L		0.005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Nickel	ND	mg/L		0.01	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Potassium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Selenium	ND	mg/L		0.001	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Silver	ND	mg/L		0.0005	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Sodium	ND	mg/L		1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Thallium	ND	mg/L		0.0002	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Vanadium	ND	mg/L		0.1	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644
Zinc	ND	mg/L		0.01	E200.8		06/24/11 11:27 / dck	06/21/11 09:05	ICPMS204-B_110622A : 477		12644

Report Definitions:

RL - Analyte reporting limit.

MCL - Maximum contaminant level.

AB
8/10/14

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID S35MW09
Lab ID: H11060355-009
Matrix: Aqueous

Project: UBM/C
Collection Date: 06/17/11 11:05
Report Date: 07/18/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
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METALS, TOTAL RECOVERABLE

-The Total Recoverable Metals were confirmed with duplicate analysis.

Report Definitions:
RL - Analyte reporting limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

July 13, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11060355 Quote ID: H645

Project Name: UBMC

Energy Laboratories Inc Helena MT received the following 10 samples for MT DEQ-Site Response on 6/17/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11060355-001	S35MW01	06/16/11 15:50	06/17/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Prep for low level 245.7 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060355-002	S35MW03	06/16/11 17:50	06/17/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Prep for low level 245.7 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11060355-003	S35MW04	06/16/11 18:34	06/17/11	Aqueous	Same As Above
H11060355-004	S35MW07	06/16/11 18:34	06/17/11	Aqueous	Same As Above
H11060355-005	S35MW08	06/17/11 7:18	06/17/11	Aqueous	Same As Above
H11060355-006	S35MW06	06/17/11 8:15	06/17/11	Aqueous	Same As Above
H11060355-007	S35MW02	06/17/11 10:04	06/17/11	Aqueous	Same As Above
H11060355-008	S35MW05	06/17/11 10:38	06/17/11	Aqueous	Same As Above
H11060355-009	S35MW09	06/17/11 11:05	06/17/11	Aqueous	Same As Above
H11060355-010	TB061511HCL200406181	06/16/11 15:50	06/17/11	Trip Blank	Prep for low level 245.7

1

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

ANALYTICAL SUMMARY REPORT

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response**Project:** UBM/C**Sample Delivery Group:** H11060355**Report Date:** 07/18/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

Workorder Receipt Checklist



MT DEQ-Site Response

H11060355

Login completed by: Wanda Johnson

Date Received: 6/17/2011

Reviewed by: BL2000\ablackburn

Received by: elm

Reviewed Date: 6/22/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	1.5°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

Raw container for UBMCTDMW07 was labeled as UBMCTDM010T. However, it was in the bag with the metals container labeled date & time correctly. A. Dreesbach stated bottle was mis-labeled & use the original label name. Wj 6/21/11

Chain of Custody and Analytical Request Record

Page 1 of 1Company Name:
MDEQ-RPS

Report Mail Address:

Project Name, PWS, Permit, Etc. **Baseline Groundwater**
Contact Name: **Shallie Halland**
Phone/Fax: **941-5033**
Email: **Shallie.Halland@marketstatisch.com**

Invoice Address:

Invoice Contact & Phone: **Purchase Order/Quote/Bottle Order:**

Special Report/Formats:

- DW EDD/EDT(Electronic Data)
 POTWWTP Format:
 State: _____ LEVEL IV
 Other: _____ NELAC

Number of Containers: **1**
Sample Type: **A W S V B O DW**
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED				Standard Turnaround (TAT)
R	U	S	H	
Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Comments: please copy results to addressable portage inc.	Receipt Temp: 15°C	Cooler ID(s): ✓	Shipped by: MarketStatisch

On Ice:	<input checked="" type="checkbox"/>
Custody Seal	<input checked="" type="checkbox"/>
On Cooler	<input checked="" type="checkbox"/>
Intact Signature	<input checked="" type="checkbox"/>
Match Signature	<input checked="" type="checkbox"/>

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	SEE ATTACHED
1. 535Mw01	6/14/11	1550	W	Section 35 baseline groundwater
2. 535Mw02	6/16/11	1750		
3. 535Mw04	6/16/11	1834		
4. 535Mw07	6/16/11	1834		
5. 535Mw08	6/17/11	0718		
6. 535Mw06	6/17/11	0915		
7. 535Mw02	6/17/11	1054		
8. 535Mw05	6/17/11	1054		
9. 535Mw09	6/17/11	1105	W	
10. 535Mw05				

Retrieved by (print): **Plan Bressack** Date/Time: **6/17/11 14:06**
Requisitioned by (print): **Shallie Halland** Date/Time: **6/17/11 14:06**

Signature: **Shallie Halland**Signature: **Shallie Halland**

LABORATORY USE ONLY

Received by (print): **Shallie Halland** Date/Time: **6/17/11 14:06**
Signature: **Shallie Halland**

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analytical request.
This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Analyte Limits For Quote #: H-645

Schedule Name	Analyte	Report Limit	Units
TestName			
<i>UBMC Ground Water Section 35 Baseline</i>			
Acidity, Total as CaCO3	Acidity, Total as CaCO3	4	mg/L
✓ Alkalinity	Alkalinity, Total as CaCO3	4	mg/L
	Bicarbonate as HCO3	4	mg/L
	Carbonate as CO3	4	mg/L
✓ Anions by Ion Chromatography	Chloride	1	mg/L
	Sulfate	1	mg/L
✓ Conductivity	Conductivity	1	umhos/c
Hardness as CaCO3	Hardness as CaCO3	1	mg/L
Mercury, Total	Mercury	10	ng/L
Metals by ICP/ICPMS, Dissolved	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.05	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L
	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
Metals by ICP/ICPMS, Tot. Rec.	Aluminum	0.03	mg/L
	Antimony	0.003	mg/L
	Arsenic	0.003	mg/L
	Barium	0.005	mg/L
	Beryllium	0.001	mg/L
	Cadmium	0.00008	mg/L
	Calcium	1	mg/L
	Chromium	0.001	mg/L
	Cobalt	0.01	mg/L
	Copper	0.001	mg/L
	Iron	0.03	mg/L
	Lead	0.0005	mg/L
	Magnesium	1	mg/L
	Manganese	0.005	mg/L

**Analyte Limits For Quote #: H-645**

Schedule Name	Analyte	Report Limit	Units
TestName			
Metals by ICP/ICPMS, Tot. Rec.	Mercury	0.00001	mg/L
	Nickel	0.01	mg/L
	Potassium	1	mg/L
	Selenium	0.001	mg/L
	Silver	0.0005	mg/L
	Sodium	1	mg/L
	Thallium	0.0002	mg/L
	Vanadium	0.1	mg/L
	Zinc	0.01	mg/L
pH	pH	0.1	s.u.
Solids, Total Dissolved	Solids, Total Dissolved TDS @ 180 C	10	mg/L
Solids, Total Suspended	Solids, Total Suspended TSS @ 105 C	10	mg/L

UBMC Section 35 Baseline Surface Water

SDG#: H11090332

Number of Samples: 6

Sample Matrix: Water

Applicable Analytes: (6) pH, Conductivity, TSS, TDS, Alkalinity: (Total Alkalinity, Bicarbonate, and Carbonate), Anions: (Chloride and Sulfate), Hardness, Dissolved Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), (2), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), (7) Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, and Zn), and (8) Total Mercury by USEPA Method 245.7

Reporting Tier: 3

Applicable TOS#: N/A

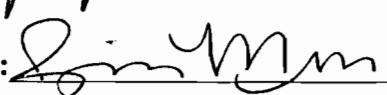
Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator:  Date Completed: 10/26/11

Portage Review:  Date Completed: 10/26/11

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Section 35 Baseline Surface Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Section 35 Surface Water surface water sample results were received by Portage, Inc. in October 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity: (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), and total Hg by USEPA Method 245.1. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 200.8, and 245.1. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Section 35 Baseline Surface Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35SW05	H11090332-001	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	09/19/11	09/20/11
S35SW01	H11090332-002	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/19/11	09/20/11
S35SW06	H11090332-003	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/19/11	09/20/11
S35SW02	H11090332-004	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/19/11	09/20/11

Cross-Reference for UBMC Section 35 Baseline Groundwater Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35SW04	H11090332-005	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/19/11	09/20/11
S35SW03	H11090332-006	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/19/11	09/20/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 09/19/2011. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 09/21/2011 within the 28-day holding time for conductivity, the 14-day holding time for alkalinity (total alkalinity, bicarbonate, and carbonate), and the 7-day holding time for TSS and TDS. The chloride and sulfate results were analyzed on 09/27/11 within the 28-day holding time. The hardness results were analyzed on 09/26/11 within the 180-day holding time. The dissolved metals were analyzed on 09/24/11 and the total recoverable metals were analyzed on 09/23/11, total mercury results were analyzed on 10/11/11 within the 28-day holding time for mercury and within the 180-day holding time for the remaining analytes.

The pH samples were collected on 09/19/11, received on 09/20/11, and analyzed on 09/21/11 approximately 1 day after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a “J-“ validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB for alkalinity exhibited a positive detection between the MDL and RL. Alkalinity warrants no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration.

The PB for mercury exhibited a positive detection between the MDL and the RL. Mercury warrants no qualification due to positive detection in the method blank as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration.

For Batch# R74680, Dissolved Metals by ICP-AES, the PB for calcium and magnesium exhibited positive detections between the MDL and the RL. Calcium and magnesium warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration.

For Batch# 13914, Total Recoverable Metals by ICP-MS, the PB for antimony, iron, lead, vanadium, and zinc exhibited positive detections between the MDL and the RL. Batch# 13914 is associated with samples S35SW05, S35SW01, and S35SW06. Iron warrants no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration. Antimony, lead, vanadium, and zinc warrant no qualification as the reported results were non-detect.

For Batch# R74742, Total Recoverable Metals by ICP-MS, the PB for aluminum, antimony, calcium, copper, iron, magnesium, manganese, silver, and zinc exhibited positive detections between the MDL and the RL. Batch# R74742 is associated with samples S35SW02, S35SW04, and S35SW03. Aluminum, antimony, silver, and zinc warrant no qualification as the reported results were non-detect. Calcium, copper, iron, and magnesium warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration. Manganese warrants no qualification due to positive detection in the method blank as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration.

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

All ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

All MS/MSD recovery and MSD RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were six (6) surface water field samples included in SDG# H11090332. Six (6) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals, and total mercury by USEPA Method 245.1 as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW05

Lab ID: H11090332-001

Matrix: Aqueous

Project: Section 35 Baseline Surface Water

Collection Date: 09/19/11 09:55

Date Received: 09/20/11

Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	<u>T</u>	0.1		A4500-H B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 15		R74602
Conductivity	177	umhos/cm		1		A2510 B	09/21/11 10:17 / cm		COND_110921A : 12	10921A-COND-PROBI	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:40 / cm	09/21/11 12:56 -124 (14410200)_110921A : 8			13958
Solids, Total Dissolved TDS @ 180 C	116	mg/L		10		A2540 C	09/21/11 13:54 / cm	09/21/11 13:03 -124 (14410200)_110921B : 6			13960
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 14		R74602
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 14		R74602
Carbonate as CO3	ND	mg/L		4		A2320 B	09/21/11 15:42 / zeg		MAN-TECH_110921B : 14		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 15:55 / zeg		IC101-H_110927A : 31		R74774
Sulfate	3	mg/L		1		E300.0	09/27/11 15:55 / zeg		IC101-H_110927A : 31		R74774
Hardness as CaCO3	97	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 3		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Calcium	23	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Magnesium	10	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:16 / sld		ICP2-HE_110923B : 92		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	0.06	mg/L		0.03		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Barium	0.163	mg/L		0.005		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Calcium	24	mg/L		1		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Copper	0.001	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Iron	0.14	mg/L		0.03		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAH
10-26-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11090332-001
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 09:55 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Magnesium	11	mg/L		1		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Manganese	0.015	mg/L		0.005		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Mercury	ND	mg/L		0.00001		E245.1	10/11/11 15:50 / eli-b	10/10/11 08:30	SUB-B173958 : 8	B_57684	
Nickel	ND	mg/L		0.01		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Potassium	ND	mg/L		1		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Selenium	ND	mg/L		0.001		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Silver	ND	mg/L		0.0005		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Sodium	2	mg/L		1		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Thallium	ND	mg/L		0.0002		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Vanadium	ND	mg/L		0.1		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914
Zinc	ND	mg/L		0.01		E200.8	09/24/11 12:30 / dck	09/21/11 09:40	ICPMS204-B_110923B : 151		13914

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11090332-002
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 11:15 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.	-	0.1		A4500-H B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 17		R74602
Conductivity	181	umhos/cm		1		A2510 B	09/21/11 10:18 / cm		COND_110921A : 13	10921A-COND-PROB	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 I24 (14410200)_110921A : 10			13958
Solids, Total Dissolved TDS @ 180 C	140	mg/L		10		A2540 C	09/21/11 13:54 / cm	09/21/11 13:03 -124 (14410200)_110921B : 8			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	110	mg/L		4		A2320 B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 16		R74602
Bicarbonate as HCO ₃	140	mg/L		4		A2320 B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 16		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 15:49 / zeg		MAN-TECH_110921B : 16		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 17:02 / zeg		IC101-H_110927A : 36		R74774
Sulfate	ND	mg/L		1		E300.0	09/27/11 17:02 / zeg		IC101-H_110927A : 36		R74774
Hardness as CaCO ₃	102	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 4		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Calcium	27	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Magnesium	8	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:20 / sld		ICP2-HE_110923B : 93		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	0.03	mg/L		0.03		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Barium	0.197	mg/L		0.005		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Calcium	27	mg/L		1		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Copper	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Iron	0.14	mg/L		0.03		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914

Report Definitions: RL - Analyte reporting limit.
ND - Not detected at the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN

10-26-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Project: Section 35 Baseline Surface Water

Client Sample ID: S35SW01

Collection Date: 09/19/11 11:15

Date Received: 09/20/11

Lab ID: H11090332-002

Report Date: 10/12/11

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Magnesium	9	mg/L		1		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Manganese	0.007	mg/L		0.005		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Mercury	ND	mg/L		0.00001		E245.1	10/11/11 15:35 / eli-b	10/10/11 08:30	SUB-B173958 : 7		B_57684
Nickel	ND	mg/L		0.01		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Potassium	ND	mg/L		1		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Selenium	ND	mg/L		0.001		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Silver	ND	mg/L		0.0005		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Sodium	2	mg/L		1		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Thallium	ND	mg/L		0.0002		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Vanadium	ND	mg/L		0.1		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914
Zinc	ND	mg/L		0.01		E200.8	09/24/11 12:34 / dck	09/21/11 09:40	ICPMS204-B_110923B : 152		13914

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Project: Section 35 Baseline Surface Water

Client Sample ID: S35SW06

Collection Date: 09/19/11 11:20 **Date Received:** 09/20/11

Lab ID: H11090332-003

Report Date: 10/12/11

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.	<i>5-</i>		0.1	A4500-H B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 19		R74602
Conductivity	182	umhos/cm		1		A2510 B	09/21/11 10:21 / cm		COND_110921A : 14	10921A-COND-PROBI	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 I24 (14410200)_110921A : 11			13958
Solids, Total Dissolved TDS @ 180 C	129	mg/L		10		A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 I24 (14410200)_110921B : 10			13960
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 18		R74602
Bicarbonate as HCO3	140	mg/L		4		A2320 B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 18		R74602
Carbonate as CO3	ND	mg/L		4		A2320 B	09/21/11 15:57 / zeg		MAN-TECH_110921B : 18		R74602
Chloride	ND	mg/L		1		E300.0	09/27/11 17:15 / zeg		IC101-H_110927A : 37		R74774
Sulfate	ND	mg/L		1		E300.0	09/27/11 17:15 / zeg		IC101-H_110927A : 37		R74774
Hardness as CaCO3	102	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 5		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Calcium	27	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Magnesium	8	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
Sodium	2	mg/L		1		E200.7	09/23/11 17:23 / sld		ICP2-HE_110923B : 94		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Antimony	ND	mg/L		0.003		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Barium	0.202	mg/L		0.005		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Cadmium	ND	mg/L		0.00008		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Calcium	27	mg/L		1		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Chromium	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Copper	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Iron	0.15	mg/L		0.03		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

*JAH
10-26-11*

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11090332-003
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 11:20 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Magnesium	9	mg/L		1		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Manganese	0.006	mg/L		0.005		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Mercury	ND	mg/L		0.00001		E245.1	10/11/11 15:45 / eli-b	10/10/11 08:30	SUB-B173958 : 6		B_57684
Nickel	ND	mg/L		0.01		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Potassium	ND	mg/L		1		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Selenium	ND	mg/L		0.001		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Silver	ND	mg/L		0.0005		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Sodium	2	mg/L		1		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Thallium	ND	mg/L		0.0002		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Vanadium	ND	mg/L		0.1		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914
Zinc	ND	mg/L		0.01		E200.8	09/24/11 12:39 / dck	09/21/11 09:40	ICPMS204-B_110923B : 153		13914

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11090332-004
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 13:00 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.	-	0.1	A4500-H B	09/21/11 16:11 / zeg			MAN-TECH_110921B : 23	R74602	
Conductivity	128	umhos/cm		1	A2510 B	09/21/11 10:22 / cm			COND_110921A : 15	10921A-COND-PROB1	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 I24 (14410200)_110921A : 12			13958	
Solids, Total Dissolved TDS @ 180 C	97	mg/L		10	A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 I24 (14410200)_110921B : 11			13960	
INORGANICS											
Alkalinity, Total as CaCO3	77	mg/L		4	A2320 B	09/21/11 16:11 / zeg			MAN-TECH_110921B : 22	R74602	
Bicarbonate as HCO3	94	mg/L		4	A2320 B	09/21/11 16:11 / zeg			MAN-TECH_110921B : 22	R74602	
Carbonate as CO3	ND	mg/L		4	A2320 B	09/21/11 16:11 / zeg			MAN-TECH_110921B : 22	R74602	
Chloride	ND	mg/L		1	E300.0	09/27/11 17:29 / zeg			IC101-H_110927A : 38	R74774	
Sulfate	1	mg/L		1	E300.0	09/27/11 17:29 / zeg			IC101-H_110927A : 38	R74774	
Hardness as CaCO3	69	mg/L		1	A2340 B	09/26/11 13:50 / sld			WATERCALC_110926A : 6	R74703	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.7	09/23/11 17:27 / sld			ICP2-HE_110923B : 95	R74680	
Calcium	17	mg/L		1	E200.7	09/23/11 17:27 / sld			ICP2-HE_110923B : 95	R74680	
Magnesium	6	mg/L		1	E200.7	09/23/11 17:27 / sld			ICP2-HE_110923B : 95	R74680	
Potassium	ND	mg/L		1	E200.7	09/23/11 17:27 / sld			ICP2-HE_110923B : 95	R74680	
Sodium	2	mg/L		1	E200.7	09/23/11 17:27 / sld			ICP2-HE_110923B : 95	R74680	
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Antimony	ND	mg/L		0.003	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Arsenic	ND	mg/L		0.003	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Barium	0.117	mg/L		0.005	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Beryllium	ND	mg/L		0.001	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Cadmium	ND	mg/L		0.00008	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Calcium	17	mg/L		1	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Chromium	ND	mg/L		0.001	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Cobalt	ND	mg/L		0.01	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Copper	0.001	mg/L		0.001	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	
Iron	0.14	mg/L		0.03	E200.8	09/24/11 12:43 / dck			ICPMS204-B_110923B : 154	R74742	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN

10-26-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11090332-004
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 13:00 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Magnesium	7	mg/L		1		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Manganese	0.022	mg/L		0.005		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Mercury	ND	mg/L		0.00001		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Nickel	ND	mg/L		0.01		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Potassium	ND	mg/L		1		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Selenium	ND	mg/L		0.001		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Silver	ND	mg/L		0.0005		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Sodium	2	mg/L		1		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Thallium	ND	mg/L		0.0002		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Vanadium	ND	mg/L		0.1		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742
Zinc	ND	mg/L		0.01		E200.8	09/24/11 12:43 / dck		ICPMS204-B_110923B : 154		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11090332-005
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 14:10 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1		A4500-H B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 25		R74602
Conductivity	209	umhos/cm		1		A2510 B	09/21/11 11:08 / cm		COND_110921A : 16	10921A-COND-PROBI	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/21/11 13:41 / cm	09/21/11 12:56 24 (14410200)_110921A : 13			13958
Solids, Total Dissolved TDS @ 180 C	140	mg/L		10		A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 24 (14410200)_110921B : 12			13960
INORGANICS											
Alkalinity, Total as CaCO ₃	79	mg/L		4		A2320 B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 24		R74602
Bicarbonate as HCO ₃	97	mg/L		4		A2320 B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 24		R74602
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/21/11 16:18 / zeg		MAN-TECH_110921B : 24		R74602
Chloride	2	mg/L		1		E300.0	09/27/11 17:42 / zeg		IC101-H_110927A : 39		R74774
Sulfate	31	mg/L		1		E300.0	09/27/11 17:42 / zeg		IC101-H_110927A : 39		R74774
Hardness as CaCO ₃	107	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 7		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Calcium	25	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Magnesium	11	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
Sodium	3	mg/L		1		E200.7	09/23/11 17:31 / sld		ICP2-HE_110923B : 96		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Antimony	ND	mg/L		0.003		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Barium	0.187	mg/L		0.005		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Cadmium	0.00016	mg/L		0.00008		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Calcium	25	mg/L		1		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Chromium	ND	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Copper	0.001	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Iron	0.05	mg/L		0.03		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
10-26-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11090332-005
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 14:10 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Magnesium	12	mg/L		1		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Manganese	ND	mg/L		0.005		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Mercury	0.00002	mg/L		0.00001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Nickel	ND	mg/L		0.01		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Potassium	ND	mg/L		1		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Selenium	ND	mg/L		0.001		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Silver	ND	mg/L		0.0005		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Sodium	3	mg/L		1		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Thallium	ND	mg/L		0.0002		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Vanadium	ND	mg/L		0.1		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742
Zinc	0.06	mg/L		0.01		E200.8	09/24/11 13:02 / dck		ICPMS204-B_110923B : 158		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11090332-006
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 14:45 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	J-		0.1	A4500-H B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 27		R74602
Conductivity	209	umhos/cm			1	A2510 B	09/21/11 11:09 / cm		COND_110921A : 17	10921A-COND-PROBI	
Solids, Total Suspended TSS @ 105 C	ND	mg/L			10	A2540 D	09/21/11 13:42 / cm	09/21/11 12:56 I24 (14410200)_110921A : 14			13958
Solids, Total Dissolved TDS @ 180 C	142	mg/L			10	A2540 C	09/21/11 13:55 / cm	09/21/11 13:03 I24 (14410200)_110921B : 13			13960
INORGANICS											
Alkalinity, Total as CaCO3	80	mg/L		4		A2320 B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 26		R74602
Bicarbonate as HCO3	97	mg/L		4		A2320 B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 26		R74602
Carbonate as CO3	ND	mg/L		4		A2320 B	09/21/11 16:25 / zeg		MAN-TECH_110921B : 26		R74602
Chloride	2	mg/L		1		E300.0	09/27/11 17:56 / zeg		IC101-H_110927A : 40		R74774
Sulfate	31	mg/L		1		E300.0	09/27/11 17:56 / zeg		IC101-H_110927A : 40		R74774
Hardness as CaCO3	107	mg/L		1		A2340 B	09/26/11 13:50 / sld		WATERCALC_110926A : 8		R74703
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Calcium	25	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Magnesium	11	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Potassium	ND	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
Sodium	3	mg/L		1		E200.7	09/23/11 17:35 / sld		ICP2-HE_110923B : 97		R74680
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Antimony	ND	mg/L		0.003		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Arsenic	ND	mg/L		0.003		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Barium	0.194	mg/L		0.005		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Beryllium	ND	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Cadmium	0.00017	mg/L		0.00008		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Calcium	25	mg/L		1		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Chromium	ND	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Cobalt	ND	mg/L		0.01		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Copper	0.001	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Iron	0.06	mg/L		0.03		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
10-26-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11090332-006
Matrix: Aqueous

Project: Section 35 Baseline Surface Water
Collection Date: 09/19/11 14:45 **Date Received:** 09/20/11
Report Date: 10/12/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Magnesium	12	mg/L		1		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Manganese	0.006	mg/L		0.005		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Mercury	ND	mg/L		0.00001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Nickel	ND	mg/L		0.01		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Potassium	ND	mg/L		1		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Selenium	ND	mg/L		0.001		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Silver	ND	mg/L		0.0005		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Sodium	3	mg/L		1		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Thallium	ND	mg/L		0.0002		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Vanadium	ND	mg/L		0.1		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742
Zinc	0.06	mg/L		0.01		E200.8	09/24/11 13:06 / dck		ICPMS204-B_110923B : 159		R74742

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

October 12, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11090332 Quote ID: H645 - UBMC

Project Name: Section 35 Baseline Surface Water

Energy Laboratories Inc Helena MT received the following 7 samples for MT DEQ-Site Response on 9/20/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11090332-001	S35SW05	09/19/11 9:55	09/20/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090332-002	S35SW01	09/19/11 11:15	09/20/11	Aqueous	Same As Above
H11090332-003	S35SW06	09/19/11 11:20	09/20/11	Aqueous	Same As Above
H11090332-004	S35SW02	09/19/11 13:00	09/20/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090332-005	S35SW04	09/19/11 14:10	09/20/11	Aqueous	Same As Above
H11090332-006	S35SW03	09/19/11 14:45	09/20/11	Aqueous	Same As Above
H11090332-007	TB2004091311 EM	09/19/11 9:55	09/20/11	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: Section 35 Baseline Surface Water
Sample Delivery Group: H11090332

Report Date: 10/12/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:

MKEQ - SKS

Report Mail Address:

Quote H-645

Invoice Address:

Shallowland Shallowland, NC

Special Report/Formats:

- DW
- POTWWTP
- State: _____
- Other: _____
- EDD/EDT(Electronic Data)
- Format: _____
- LEVEL IV
- NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

baseline surface water
Contact Name: **Shallowland**
Phone/Fax: **845-0333**
Invoice Contact & Phone: **Shallowland, NC**
Purchase Order: **Quote/Bottle Order:**

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

R	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Shipped by: HAN
U	Comments: Pls use my results to address lab portage inc.	Receipt Temp: 3.4 °C
S		On Ice: Y N
H		Custody Seal On Cooler: Y N
	Intact Signature: Match Y N	

404-490-2335

H11020322

LABORATORY USE ONLY

**Custody Record
MUST be Signed**

Sample Disposal: Return to Client.

Lab Disposal: **X**

Retained by (print): **Alex Drews**

Date/Time: **9/20/11 14:45**

Signature: **John**

Received by (print):

Date/Time:

Signature:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Workorder Receipt Checklist



MT DEQ-Site Response

H11090332

Login completed by: Wanda Johnson

Date Received: 9/20/2011

Reviewed by: BL2000\sdull

Received by: elm

Reviewed Date: 10/4/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	3.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

S35SW04 time on bottle states 14:10 COC states 13:55. E-mail sent to client regarding time & which one we should use. Wj 9/20/11. Received e-mail from A Dreesbach stating to use the 14:10 bottle. Wj 9/23/11

UBMC Section 35 Baseline Ground Water

SDG#: H11090405

Number of Samples: 8

Sample Matrix: Groundwater

Applicable Analytes: (8) pH, Conductivity, TSS, TDS, Alkalinity: (Total Alkalinity, Bicarbonate, and Carbonate), Anions: (Chloride and Sulfate), Hardness, Dissolved Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, and Zn), and Total Mercury by USEPA Method 245.1

Reporting Tier: 3

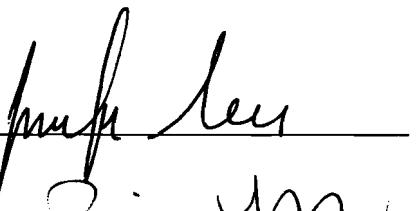
Applicable TOS#: N/A

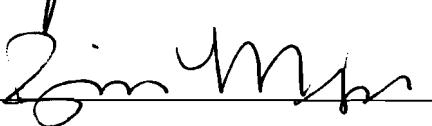
Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator:  Date Completed: 11/02/11

Portage Review:  Date Completed: 11/2/11

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Section 35 Baseline Ground Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Section 35 Ground Water surface water sample results were received by Portage, Inc. in October 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity: (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), and total Hg by USEPA Method 245.1. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 200.8, and 245.1. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Section 35 Baseline Groundwater Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35MW02	H11090405-001	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	09/21/11	09/23/11
S35MW08	H11090405-002	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11
S35MW09	H11090405-003	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11
S35MW01	H11090405-004	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11

Cross-Reference for UBMC Section 35 Baseline Groundwater Water Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35MW03	H11090405-005	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11
S35MW06	H11090405-006	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11
S35MW04	H11090405-007	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11
S35MW07	H11090405-008	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Hg	09/21/11	09/23/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 09/21/2011. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 09/26/2011 within the 28-day holding time for conductivity, the 14-day holding time for alkalinity (total alkalinity, bicarbonate, and carbonate), and the 7-day holding time for TSS and TDS. The chloride and sulfate results were analyzed on 10/06/11 within the 28-day holding time. The hardness results were analyzed on 10/01/11 within the 180-day holding time. The dissolved metals were analyzed on 10/01/11 and the total recoverable metals were analyzed on 10/07/11, total mercury results were analyzed on 10/03/11 within the 28-day holding time for mercury and within the 180-day holding time for the remaining analytes.

The pH samples were collected on 09/21/11, received on 09/23/11, and analyzed on 09/26/11 approximately 5 days after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a "J-" validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB for alkalinity exhibited a positive detection between the MDL and RL. Alkalinity warrants no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration.

The PB for TDS Batch # 14031 exhibited a positive detection between the MDL and the RL. The associated TDS results no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration

The PBs for mercury exhibited a positive detection between the MDL and the RL. Mercury warrants no qualification due to positive detection in the method blank as the reported results were either non-detect or greater than the RL and greater than five times the PB concentration.

For Batch# R74807, Dissolved Metals by ICP-AES, the PB for sodium and zinc exhibited positive detections between the MDL and the RL. The associated sodium and zinc results warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration.

For Batch# 14013, Total Recoverable Metals by ICP-MS, the PB for aluminum, arsenic, beryllium, chromium, cobalt, iron, magnesium, sodium, vanadium, and zinc exhibited positive detections between the MDL and the RL. Aluminum, chromium, iron, and magnesium warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration. Beryllium, cobalt, and vanadium warrant no qualification as the reported results were non-detect. Arsenic, sodium, and zinc warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration or were non-detect.

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

All ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The chloride MS for Batch# R75119 (88%) exhibited recovery outside the 90-110% recovery criteria prescribed by USEPA 300.0. Batch# R75119 is associated with all anion sample results, **excluding** S35MW02. All associated chloride sample results have been qualified with a “UJ” validation flag due to low MS recovery and sample results less than the RL.

The remaining MS/MSD recovery and RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were eight (8) groundwater field samples included in SDG# H11090405. Eight (8) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals, eight (8) field samples were analyzed for total mercury by USEPA Method 245.1 as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

All chloride sample results, **excluding** S35MW02, have been qualified with a “UJ” validation flag to denote the reported results are non-detect and estimates at the reported value due to low MS recovery.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11090405-001
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:05 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.		0.1		A4500-H B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 35		R74718
Conductivity	306	umhos/cm		1		A2510 B	09/26/11 11:53 / cmm		COND_110926A : 3310926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	280	mg/L		10		A2540 D	09/26/11 14:19 / cmm	09/26/11 13:56-124 (14410200)_110926A : 13			14027
Solids, Total Dissolved TDS @ 180 C	206	mg/L		10		A2540 C	09/26/11 14:41 / cmm	09/26/11 14:04-124 (14410200)_110926B : 20			14030
INORGANICS											
Alkalinity, Total as CaCO ₃	190	mg/L		4		A2320 B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 34		R74718
Bicarbonate as HCO ₃	230	mg/L		4		A2320 B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 34		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 19:56 / zeg		MAN-TECH_110926A : 34		R74718
Chloride	1	mg/L		1		E300.0	10/05/11 15:34 / zeg		IC101-H_111005A : 32		R75087
Sulfate	5	mg/L		1		E300.0	10/05/11 15:34 / zeg		IC101-H_111005A : 32		R75087
Hardness as CaCO ₃	224	mg/L		1		A2340 B	10/11/11 08:54 / sld		WATERCALC_111011A : 1		R75211
METALS, DISSOLVED											
Aluminum	0.03	mg/L		0.03		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Antimony	ND	mg/L		0.003		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Arsenic	ND	mg/L		0.003		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Barium	0.792	mg/L		0.005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Beryllium	ND	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Cadmium	0.00055	mg/L		0.00008		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Calcium	64	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Chromium	ND	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Cobalt	ND	mg/L		0.01		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Copper	0.008	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Iron	0.06	mg/L		0.05		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Lead	ND	mg/L		0.0005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Magnesium	15	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Manganese	0.022	mg/L		0.005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Mercury	0.00004	mg/L		0.00001		E200.8	10/07/11 18:19 / dck		ICPMS204-B_111007A : 31		R75194
Nickel	ND	mg/L		0.01		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Potassium	2	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Selenium	ND	mg/L		0.001		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW02
Lab ID: H11090405-001
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:05 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Sodium	5	mg/L		1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Thallium	ND	mg/L		0.0002		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Vanadium	ND	mg/L		0.1		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
Zinc	ND	mg/L		0.01		E200.8	09/28/11 08:24 / dck		ICPMS204-B_110927B : 165		R74807
METALS, TOTAL											
Mercury	0.00045	mg/L	D	0.00005		E245.1	10/06/11 14:58 / eli-b	09/29/11 08:55	SUB-B173749 : 2		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	6.33	mg/L		0.03		E200.8	10/10/11 20:18 / dck	09/26/11 09:54	ICPMS204-B_111010A : 137		14013
Antimony	0.003	mg/L		0.003		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Arsenic	0.012	mg/L		0.003		E200.8	10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Barium	1.25	mg/L		0.005		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Cadmium	0.00102	mg/L		0.00008		E200.8	10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Calcium	66	mg/L		1		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Chromium	0.037	mg/L		0.001		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Copper	0.053	mg/L		0.001		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Iron	20.2	mg/L		0.03		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Lead	0.0538	mg/L		0.0005		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Magnesium	14	mg/L		1		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Manganese	0.711	mg/L		0.005		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Nickel	0.02	mg/L		0.01		E200.8	10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Potassium	4	mg/L		1		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Selenium	ND	mg/L		0.001		E200.8	10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Silver	0.0167	mg/L		0.0005		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Sodium	3	mg/L		1		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 06:26 / dck	09/26/11 09:54	ICPMS204-B_110930B : 110		14013
Vanadium	ND	mg/L		0.1		E200.8	10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013
Zinc	0.15	mg/L		0.01		E200.8	10/07/11 18:46 / dck	09/26/11 09:54	ICPMS204-B_111007A : 37		14013

Report Definitions: RL - Analyte reporting limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11090405-002
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.8	s.u.	U-		0.1	A4500-H B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 37		R74718
Conductivity	ND	umhos/cm			1	A2510 B	09/26/11 11:54 / cmm		COND_110926A : 3410926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L			10	A2540 D	09/26/11 14:19 / cmm	09/26/11 13:56-124 (14410200)_110926A : 14			14027
Solids, Total Dissolved TDS @ 180 C	ND	mg/L			10	A2540 C	09/28/11 12:49 / cmm	09/28/11 11:37-124 (14410200)_110926A : 12			14062
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 36		R74718
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 36		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:01 / zeg		MAN-TECH_110926A : 36		R74718
Chloride	ND	mg/L	U-	1		E300.0	10/06/11 13:11 / zeg		IC101-H_110906A : 20		R75119
Sulfate	ND	mg/L		1		E300.0	10/06/11 13:11 / zeg		IC101-H_110906A : 20		R75119
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	10/11/11 08:54 / sld		WATERCALC_111011A : 2		R75211
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Barium	ND	mg/L		0.005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Calcium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Copper	ND	mg/L		0.001		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Iron	ND	mg/L		0.05		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Magnesium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Nickel	ND	mg/L		0.01		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Potassium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Selenium	ND	mg/L		0.001		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
10-27-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11090405-002
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Sodium	ND	mg/L		1		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 06:30 / dck		ICPMS204-B_110930B : 111		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
Zinc	ND	mg/L		0.01		E200.8	10/07/11 19:09 / dck		ICPMS204-B_111007A : 42		R75194
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Barium	ND	mg/L		0.005		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Calcium	ND	mg/L		1		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Copper	ND	mg/L		0.001		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Iron	ND	mg/L		0.03		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Magnesium	ND	mg/L		1		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Nickel	ND	mg/L		0.01		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Potassium	ND	mg/L		1		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Selenium	ND	mg/L		0.001		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Silver	ND	mg/L		0.0005		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Sodium	ND	mg/L		1		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 06:35 / dck		ICPMS204-B_110930B : 112		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194
Zinc	ND	mg/L		0.01		E200.8	10/07/11 19:14 / dck		ICPMS204-B_111007A : 43		R75194

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11090405-003
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:55 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	6.5	s.u.	<u>T</u> -	0.1	A4500-H B	09/26/11 20:10 / zeg			MAN-TECH_110926A : 41	R74718	
Conductivity	3	umhos/cm		1	A2510 B	09/26/11 11:55 / cmm			COND_110926A : 3510926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 16			14027	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10	A2540 C	09/28/11 12:49 / cmm	09/28/11 11:37-124 (14410200)_110928A : 13			14062	
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4	A2320 B	09/26/11 20:10 / zeg			MAN-TECH_110926A : 40	R74718	
Bicarbonate as HCO3	ND	mg/L		4	A2320 B	09/26/11 20:10 / zeg			MAN-TECH_110926A : 40	R74718	
Carbonate as CO3	ND	mg/L		4	A2320 B	09/26/11 20:10 / zeg			MAN-TECH_110926A : 40	R74718	
Chloride	ND	mg/L	<u>UT</u>	1	E300.0	10/06/11 13:25 / zeg			IC101-H_110906A : 21	R75119	
Sulfate	ND	mg/L		1	E300.0	10/06/11 13:25 / zeg			IC101-H_110906A : 21	R75119	
Hardness as CaCO3	ND	mg/L		1	A2340 B	10/11/11 08:54 / sld			WATERCALC_111011A : 3	R75211	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Antimony	ND	mg/L		0.003	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Arsenic	ND	mg/L		0.003	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Barium	0.007	mg/L		0.005	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Beryllium	ND	mg/L		0.001	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Cadmium	ND	mg/L		0.00008	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Calcium	ND	mg/L		1	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Chromium	ND	mg/L		0.001	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Cobalt	ND	mg/L		0.01	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Copper	ND	mg/L		0.001	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Iron	0.06	mg/L		0.05	E200.8	10/07/11 19:19 / dck			ICPMS204-B_111007A : 44	R75194	
Lead	ND	mg/L		0.0005	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Magnesium	ND	mg/L		1	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Manganese	ND	mg/L		0.005	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Mercury	ND	mg/L		0.00001	E200.8	10/07/11 19:19 / dck			ICPMS204-B_111007A : 44	R75194	
Nickel	ND	mg/L		0.01	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Potassium	ND	mg/L		1	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	
Selenium	ND	mg/L		0.001	E200.8	10/01/11 07:11 / dck			ICPMS204-B_110930B : 120	R74966	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
10/24/11



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11090405-003
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:55 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Sodium	ND	mg/L		1		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:11 / dck		ICPMS204-B_110930B : 120		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	10/06/11 15:11 / eli-b	09/29/11 08:55	SUB-B173749 : 1		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	0.08	mg/L		0.03		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Barium	0.011	mg/L		0.005		E200.8	10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Cadmium	0.00009	mg/L		0.00008		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Calcium	ND	mg/L		1		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Chromium	0.001	mg/L		0.001		E200.8	10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Copper	0.001	mg/L		0.001		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Iron	0.17	mg/L		0.03		E200.8	10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Magnesium	ND	mg/L		1		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Manganese	0.006	mg/L		0.005		E200.8	10/07/11 19:23 / dck	09/26/11 09:54	ICPMS204-B_111007A : 45		14013
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Potassium	ND	mg/L		1		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Sodium	ND	mg/L		1		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:16 / dck	09/26/11 09:54	ICPMS204-B_110930B : 121		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11090405-003
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 12:55 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
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METALS, TOTAL RECOVERABLE

-Total Recoverable metals detections were confirmed by independent analysis on a second instrument.

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11090405-004
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 14:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	I-	0.1		A4500-H B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 43		R74718
Conductivity	256	umhos/cm		1		A2510 B	09/26/11 11:55 / cmm		COND_110926A : 3610926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 17			14027
Solids, Total Dissolved TDS @ 180 C	158	mg/L		10		A2540 C	09/26/11 14:41 / cmm	09/26/11 14:04-124 (14410200)_110926B : 23			14030
INORGANICS											
Alkalinity, Total as CaCO3	160	mg/L		4		A2320 B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 42		R74718
Bicarbonate as HCO3	200	mg/L		4		A2320 B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 42		R74718
Carbonate as CO3	ND	mg/L		4		A2320 B	09/26/11 20:18 / zeg		MAN-TECH_110926A : 42		R74718
Chloride	ND	mg/L	U/I	1		E300.0	10/06/11 13:39 / zeg		IC101-H_110906A : 22		R75119
Sulfate	6	mg/L		1		E300.0	10/06/11 13:39 / zeg		IC101-H_110906A : 22		R75119
Hardness as CaCO3	140	mg/L		1		A2340 B	10/01/11 07:20 / wjj		CALC_111009A : 267		R75156
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Barium	0.254	mg/L		0.005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Calcium	30	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Iron	ND	mg/L		0.05		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Magnesium	16	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:28 / dck		ICPMS204-B_111007A : 46		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Potassium	1	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
10-27-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11090405-004
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 14:20 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Sodium	2	mg/L		1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:20 / dck		ICPMS204-B_110930B : 122		R74966
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Barium	0.258	mg/L		0.005		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Calcium	31	mg/L		1		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Iron	ND	mg/L		0.03		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Magnesium	17	mg/L		1		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:33 / dck		ICPMS204-B_111007A : 47		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Potassium	1	mg/L		1		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Sodium	2	mg/L		1		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:25 / dck		ICPMS204-B_110930B : 123		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11090405-005
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 16:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.3	s.u.	T-		0.1	A4500-H B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 45		R74718
Conductivity	299	umhos/cm			1	A2510 B	09/26/11 11:56 / cmm		COND_110926A : 3710926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	40	mg/L			10	A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 18			14027
Solids, Total Dissolved TDS @ 180 C	198	mg/L			10	A2540 C	09/26/11 14:41 / cmm	09/26/11 14:04-124 (14410200)_110926B : 24			14030
INORGANICS											
Alkalinity, Total as CaCO ₃	170	mg/L		4		A2320 B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 44		R74718
Bicarbonate as HCO ₃	210	mg/L		4		A2320 B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 44		R74718
Carbonate as CO ₃	ND	mg/L		4		A2320 B	09/26/11 20:25 / zeg		MAN-TECH_110926A : 44		R74718
Chloride	ND	mg/L	WT	1		E300.0	10/06/11 13:53 / zeg		IC101-H_110906A : 23		R75119
Sulfate	4	mg/L		1		E300.0	10/06/11 13:53 / zeg		IC101-H_110906A : 23		R75119
Hardness as CaCO ₃	140	mg/L		1		A2340 B	10/01/11 07:29 / wjj		CALC_111009A : 278		R75156
METALS, DISSOLVED											
Aluminum	0.04	mg/L		0.03		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Barium	0.292	mg/L		0.005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Calcium	40	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Chromium	0.002	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Iron	ND	mg/L		0.05		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Magnesium	10	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Manganese	0.014	mg/L		0.005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:37 / dck		ICPMS204-B_111007A : 48		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Potassium	2	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JEN
10-27-11



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11090405-005
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 16:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Sodium	11	mg/L		1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:29 / dck		ICPMS204-B_110930B : 124		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	10/06/11 15:36 / ell-b	09/29/11 08:55	SUB-B173749 : 5		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	0.77	mg/L		0.03		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Barium	0.317	mg/L		0.005		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Cadmium	0.00011	mg/L		0.00008		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Calcium	41	mg/L		1		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Chromium	0.004	mg/L		0.001		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Copper	0.002	mg/L		0.001		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Iron	0.72	mg/L		0.03		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Lead	0.0032	mg/L		0.0005		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Magnesium	10	mg/L		1		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Manganese	0.082	mg/L		0.005		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Potassium	2	mg/L		1		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Sodium	11	mg/L		1		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:34 / dck	09/26/11 09:54	ICPMS204-B_110930B : 125		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11090405-006
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 17:35 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	I-	0.1		A4500-H B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 47		R74718
Conductivity	350	umhos/cm		1		A2510 B	09/26/11 11:57 / cmm		COND_110926A : 3810926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	20	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 19			14027
Solids, Total Dissolved TDS @ 180 C	228	mg/L		10		A2540 C	09/26/11 14:42 / cmm	09/26/11 14:04-124 (14410200)_110926B : 25			14030
INORGANICS											
Alkalinity, Total as CaCO3	210	mg/L		4		A2320 B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 46		R74718
Bicarbonate as HCO3	250	mg/L		4		A2320 B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 46		R74718
Carbonate as CO3	ND	mg/L		4		A2320 B	09/26/11 20:32 / zeg		MAN-TECH_110926A : 46		R74718
Chloride	ND	mg/L	U/I	1		E300.0	10/06/11 14:07 / zeg		IC101-H_110906A : 24		R75119
Sulfate	1	mg/L		1		E300.0	10/06/11 14:07 / zeg		IC101-H_110906A : 24		R75119
Hardness as CaCO3	198	mg/L		1		A2340 B	10/01/11 07:38 / wjj		CALC_111009A : 289		R75156
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Barium	0.808	mg/L		0.005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Calcium	54	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Chromium	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Iron	ND	mg/L		0.05		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Lead	ND	mg/L		0.0005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Magnesium	15	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Manganese	ND	mg/L		0.005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:42 / dck		ICPMS204-B_111007A : 49		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Potassium	1	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966

Report Definitions: RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAS/H
10-27-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11090405-006
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 17:35 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Sodium	4	mg/L		1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 07:38 / dck		ICPMS204-B_110930B : 126		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	10/06/11 15:39 / eli-b	09/29/11 08:55	SUB-B173749 : 6		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	0.33	mg/L		0.03		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Barium	0.824	mg/L		0.005		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Cadmium	ND	mg/L		0.00008		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Calcium	54	mg/L		1		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Chromium	0.002	mg/L		0.001		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Copper	0.002	mg/L		0.001		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Iron	0.38	mg/L		0.03		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Lead	ND	mg/L		0.0005		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Magnesium	15	mg/L		1		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Manganese	0.012	mg/L		0.005		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Potassium	1	mg/L		1		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Silver	0.0005	mg/L		0.0005		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Sodium	4	mg/L		1		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013
Zinc	ND	mg/L		0.01		E200.8	10/01/11 08:01 / dck	09/26/11 09:54	ICPMS204-B_110930B : 131		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11090405-007
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	J -	0.1		A4500-H B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 49		R74718
Conductivity	298	umhos/cm		1		A2510 B	09/26/11 11:57 / cmm		COND_110926A : 3910926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	400	mg/L		10		A2540 D	09/26/11 14:20 / cmm	09/26/11 13:56-124 (14410200)_110926A : 20			14027
Solids, Total Dissolved TDS @ 180 C	192	mg/L		10		A2540 C	09/26/11 14:42 / cmm	09/26/11 14:06-124 (14410200)_110926B : 28			14031
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		4		A2320 B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 48		R74718
Bicarbonate as HCO3	220	mg/L		4		A2320 B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 48		R74718
Carbonate as CO3	ND	mg/L		4		A2320 B	09/26/11 20:39 / zeg		MAN-TECH_110926A : 48		R74718
Chloride	ND	mg/L	UJ	1		E300.0	10/06/11 14:49 / zeg		IC101-H_110906A : 27		R75119
Sulfate	2	mg/L		1		E300.0	10/06/11 14:49 / zeg		IC101-H_110906A : 27		R75119
Hardness as CaCO3	150	mg/L		1		A2340 B	10/01/11 08:05 / wj		CALC_111009A : 300		R75156
METALS, DISSOLVED											
Aluminum	0.24	mg/L		0.03		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Barium	0.390	mg/L		0.005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Cadmium	0.00022	mg/L		0.00008		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Calcium	44	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Chromium	0.003	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Iron	0.27	mg/L		0.05		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Lead	0.0006	mg/L		0.0005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Magnesium	10	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Manganese	0.050	mg/L		0.005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 19:46 / dck		ICPMS204-B_11007A : 50		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Potassium	3	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

10-27-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11090405-007
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:15 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Sodium	2	mg/L		1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 08:05 / dck		ICPMS204-B_110930B : 132		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	10/06/11 15:41 / eli-b	09/29/11 08:55	SUB-B173749 : 7		B_57426
METALS, TOTAL RECOVERABLE											
Aluminum	3.41	mg/L		0.03		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Barium	0.485	mg/L		0.005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Cadmium	0.00045	mg/L		0.00008		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Calcium	48	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Chromium	0.040	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Copper	0.006	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Iron	5.77	mg/L		0.03		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Lead	0.0066	mg/L		0.0005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Magnesium	11	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Manganese	0.320	mg/L		0.005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Potassium	4	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Silver	ND	mg/L		0.0005		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Sodium	3	mg/L		1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013
Zinc	0.03	mg/L		0.01		E200.8	10/01/11 08:10 / dck	09/26/11 09:54	ICPMS204-B_110930B : 133		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11090405-008
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:25 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	J-	0.1		A4500-H B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 56		R74718
Conductivity	294	umhos/cm		1		A2510 B	09/26/11 12:00 / cmm		COND_110926A : 4010926A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	448	mg/L		10		A2540 D	09/26/11 14:21 / cmm	09/26/11 13:56-124 (14410200)_110926A : 21			14027
Solids, Total Dissolved TDS @ 180 C	188	mg/L		10		A2540 C	09/26/11 14:43 / cmm	09/26/11 14:06-124 (14410200)_110926B : 29			14031
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		4		A2320 B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 55		R74718
Bicarbonate as HCO3	220	mg/L		4		A2320 B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 55		R74718
Carbonate as CO3	ND	mg/L	U	4		A2320 B	09/26/11 21:03 / zeg		MAN-TECH_110926A : 55		R74718
Chloride	ND	mg/L	UJ	1		E300.0	10/06/11 15:03 / zeg		IC101-H_110906A : 28		R75119
Sulfate	2	mg/L		1		E300.0	10/06/11 15:03 / zeg		IC101-H_110906A : 28		R75119
Hardness as CaCO3	149	mg/L		1		A2340 B	10/01/11 08:14 / wjj		CALC_111009A : 311		R75156
METALS, DISSOLVED											
Aluminum	0.22	mg/L		0.03		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Antimony	ND	mg/L		0.003		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Arsenic	ND	mg/L		0.003		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Barium	0.374	mg/L		0.005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Beryllium	ND	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Cadmium	0.00021	mg/L		0.00008		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Calcium	43	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Chromium	0.003	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Cobalt	ND	mg/L		0.01		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Copper	ND	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Iron	0.28	mg/L		0.05		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Lead	0.0006	mg/L		0.0005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Magnesium	10	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Manganese	0.045	mg/L		0.005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Mercury	ND	mg/L		0.00001		E200.8	10/07/11 20:10 / dck		ICPMS204-B_111007A : 55		R75194
Nickel	ND	mg/L		0.01		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Potassium	3	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Selenium	ND	mg/L		0.001		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
10-27-11

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11090405-008
Matrix: Aqueous

Project: Section 35 Groundwater Baseline
Collection Date: 09/21/11 18:25 **Date Received:** 09/23/11
Report Date: 10/19/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Sodium	2	mg/L		1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Thallium	ND	mg/L		0.0002		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Vanadium	ND	mg/L		0.1		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
Zinc	ND	mg/L		0.01		E200.8	10/01/11 08:14 / dck		ICPMS204-B_110930B : 134		R74966
METALS, TOTAL											
Mercury	ND	mg/L		0.00001		E245.1	10/03/11 15:56 / eli-b	10/03/11 08:37	SUB-B173547 : 9		B_57487
METALS, TOTAL RECOVERABLE											
Aluminum	3.99	mg/L		0.03		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Antimony	ND	mg/L		0.003		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Arsenic	ND	mg/L		0.003		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Barium	0.542	mg/L		0.005		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Beryllium	ND	mg/L		0.001		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Cadmium	0.00049	mg/L		0.00008		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Calcium	52	mg/L		1		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Chromium	0.043	mg/L		0.001		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Cobalt	ND	mg/L		0.01		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Copper	0.006	mg/L		0.001		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Iron	5.81	mg/L		0.03		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Lead	0.0070	mg/L		0.0005		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Magnesium	12	mg/L		1		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Manganese	0.354	mg/L		0.005		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Nickel	ND	mg/L		0.01		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Potassium	4	mg/L		1		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Selenium	ND	mg/L		0.001		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Silver	ND	mg/L		0.0005		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Sodium	3	mg/L		1		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Thallium	ND	mg/L		0.0002		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Vanadium	ND	mg/L		0.1		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013
Zinc	0.03	mg/L		0.01		E200.8	10/07/11 20:14 / dck	09/26/11 09:54	ICPMS204-B_111007A : 56		14013

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

October 19, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11090405 Quote ID: H645 - UBMC

Project Name: Section 35 Groundwater Baseline

Energy Laboratories Inc Helena MT received the following 9 samples for MT DEQ-Site Response on 9/23/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11090405-001	S35MW02	09/21/11 12:05	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-002	S35MW08	09/21/11 12:20	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-003	S35MW09	09/21/11 12:55	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended

ANALYTICAL SUMMARY REPORT

H11090405-004	S35MW01	09/21/11 14:20	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-005	S35MW03	09/21/11 16:15	09/23/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11090405-006	S35MW06	09/21/11 17:35	09/23/11	Aqueous	Same As Above
H11090405-007	S35MW04	09/21/11 18:15	09/23/11	Aqueous	Same As Above
H11090405-008	S35MW07	09/21/11 18:25	09/23/11	Aqueous	Same As Above
H11090405-009	TB2004HCL091311EM	09/21/11 12:05	09/23/11	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: Section 35 Groundwater Baseline
Sample Delivery Group: H11090405

Report Date: 10/19/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

PLEASE PRINT (Provide as much information as possible.)Company Name:
MDEQReport Mail Address:
Quoted: H-LA5

Invoice Address:

Project Name, PWS, Permit, Etc.
Section 35 Groundwater (Baseline)Contact Name:
Shellie Haaland
Phone/Fax:
341-5033 Shaaland@mt.govEmail:
Alan DreesbachSampler: (Please Print)
Tackie JonoskoPurchase Order:
Invoice Contact & Phone:Quote/Bottle Order:
Purchase Order: 341-5033 Shaaland@mt.gov**Special Report/Formats:**

- DW
 POTW/WWTP
 State: _____
 Other: _____
- EDD/EDT (Electronic Data Format: _____
 LEVEL IV
 NELAC

Number of Containers: A W S V B O DW
 Sample Type: Air Water Soils/Solids
 Vegetation Bioassay Other
 DW - Drinking Water

ANALYSIS REQUESTED

SEE ATTACHED
 Standard Turnaround (TAT)

R U S H
 Contact EU prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Comments: Please copy results to: **adresbach@PortageInc.com**

Receipt Temp
6.0 °C

On Ice: **0 N**

Custody Seal
 On Bottle **Y**
 On Cooler **Y N**

Intact Signature **Y N**
 Signature Match **Y N**

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Comments: Please copy results to: adresbach@PortageInc.com
1 S35MN02	09/21/2011	1205	W	Section 35 Baseline
2 S35MN03	09/21/2011	1220	W	Groundwater
3 S35MN04	09/21/2011	1255	W	
4 S35MN01	09/21/2011	1420	W	
5 S35MN03	09/21/2011	1615	W	
6 S35MN04	09/21/2011	1735	W	
7 S35MN04	09/21/2011	1815	W	
8 S35MN07	09/21/2011	1825	W	
9				
10				

Custody Record
MUST be Signed

Retained by (print): **Jeffrey Verstraete** Date/Time: **9/23/11 11:35 AM**
 Signature: **Signature**

Reinstituted by (print): _____ Date/Time: _____
 Signature: _____

Received by (print): _____ Date/Time: _____
 Signature: _____

Received by (print): _____ Date/Time: _____
 Signature: _____

Received by (print): _____ Date/Time: _____
 Signature: _____

LABORATORY USE ONLY

Received by Laboratory: **Jeffrey Verstraete** Date/Time: **9/23/11 11:35 AM**
 Signature: **Signature**

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Workorder Receipt Checklist



MT DEQ-Site Response

H11090405

Login completed by: Wanda Johnson

Date Received: 9/23/2011

Reviewed by: BL2000\wjohanson

Received by: elm

Reviewed Date: 10/12/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	6.0°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None

UBMC Section 35 Baseline Ground Water

SDG#: H11120150

Number of Samples: 7

Sample Matrix: (6) Surface Water and (1) Trip Blank

Applicable Analytes: (6) pH, Conductivity, TSS, TDS, Alkalinity: (Total Alkalinity, Bicarbonate, and Carbonate), Anions: (Chloride and Sulfate), Hardness, Dissolved Metals: (Al, Ca, Mg, K, Na), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), and (2) Total Mercury by USEPA Method 245.7

Reporting Tier: 3

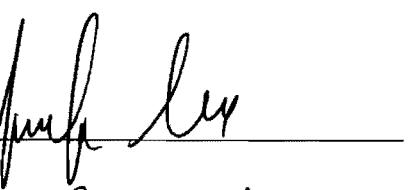
Applicable TOS#: N/A

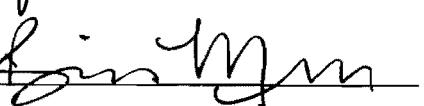
Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator:  Date Completed: 01/31/12

Portage Review:  Date Completed: 2/2/12

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Section 35 Baseline Ground Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Section 35 Ground Water surface water sample results were received by Portage, Inc. in December 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity: (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Ca, Mg, K, and Na), total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), and total Hg by USEPA Method 245.7. The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, 200.8, and 245.1. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Section 35 Baseline Groundwater Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35SW05	H11120150-001	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/10/11	12/12/11
S35SW01	H11120150-002	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/10/11	12/12/11
S35SW06	H11120150-003	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Mercury by 245.7	12/10/11	12/12/11
S35SW02	H11120150-004	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/10/11	12/12/11

Cross-Reference for UBMC Section 35 Baseline Groundwater Samples					
S35SW04	H11120150-005	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/10/11	12/12/11
S35SW03	H11120150-006	Surface Water	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/10/11	12/12/11
TB HG2004 HCL EM 12/7/11	H11120150-007	Water	Total Mercury by 245.7	12/10/11	12/12/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 12/10/2011. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 12/12/2011 within the 28-day holding time for conductivity, the 14-day holding time for alkalinity (total alkalinity, bicarbonate, and carbonate), and the 7-day holding time for TSS and TDS. The chloride and sulfate results were analyzed on 12/12/11 within the 28-day holding time. The hardness results were analyzed on 12/14/11 within the 180-day holding time. The dissolved metals were analyzed on 12/13/11 and the total recoverable metals were analyzed on 12/14/11, total mercury results were analyzed on 12/19/11 within the 28-day holding time for mercury and within the 180-day holding time for the remaining analytes.

The pH samples were collected on 12/10/11, received on 12/12/11, and analyzed on 12/12/11 approximately 1 day after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a “J-“ validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB for TDS exhibited a positive detection between the MDL and the RL. The associated TDS results no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration

The PBs for total recoverable mercury exhibited a positive detection between the MDL and the RL. Mercury warrants no qualification due to positive detection in the method blank as the reported results were non-detect.

For Dissolved Metals by ICP-AES, the PB for calcium and sodium exhibited positive detections between the MDL and the RL. The associated calcium and sodium results warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration.

For Batch #15103, Total Recoverable Metals by ICP-MS, the PB for copper, iron, manganese, sodium, vanadium, and zinc exhibited positive detections between the MDL and the RL. The copper result for sample S35SW06 has been qualified with a "U" validation flag due to a sample result greater than the RL, but less than five times the blank value. Iron and sodium warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration. Manganese, vanadium, and sodium warrant no qualification as the reported results were non-detect.

For Batch# 76786, Total Recoverable Metals by ICP-MS, the PB manganese, mercury potassium, and zinc exhibited positive detections between the MDL and the RL. Manganese, mercury, potassium, and zinc warrant no qualification as the reported results were non-detect.

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

All ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The MS/MSD recovery and RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were seven (7) groundwater field samples included in SDG# H11120150. Six (6) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals, and two (2) field samples were analyzed for total mercury by USEPA Method 245.7 as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

The total recoverable copper result for sample S35SW06 has been qualified with a “U” validation flag to denote the data is non-detect at the reported value due to a positive PB detection.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11120150-001
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 09:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1		A4500-H B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 33		R76690
Conductivity	179	umhos/cm		1		A2510 B	12/12/11 11:40 / zeg		COND_111212A : 3111212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:33 / cmm	12/12/11 14:34-124 (14410200)_111212A : 13			15073
Solids, Total Dissolved TDS @ 180 C	128	mg/L		10		A2540 C	12/12/11 15:03 / cmm	12/12/11 14:42-124 (14410200)_111212B : 15			15075
INORGANICS											
Alkalinity, Total as CaCO ₃	93	mg/L		4		A2320 B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 32		R76690
Bicarbonate as HCO ₃	110	mg/L		4		A2320 B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 32		R76690
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/12/11 18:52 / cmm		MAN-TECH_111212B : 32		R76690
Chloride	ND	mg/L		1		E300.0	12/12/11 22:08 / zeg		IC102-H_111212A : 50		R76698
Sulfate	5	mg/L		1		E300.0	12/12/11 22:08 / zeg		IC102-H_111212A : 50		R76698
Hardness as CaCO ₃	87	mg/L		1		A2340 B	12/14/11 16:15 / std		WATERCALC_111214A : 10		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:00 / std		ICP2-HE_111213A : 29		R76725
Calcium	20	mg/L		1		E200.7	12/13/11 13:00 / std		ICP2-HE_111213A : 29		R76725
Magnesium	9	mg/L		1		E200.7	12/13/11 13:00 / std		ICP2-HE_111213A : 29		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:00 / std		ICP2-HE_111213A : 29		R76725
Sodium	2	mg/L		1		E200.7	12/13/11 13:00 / std		ICP2-HE_111213A : 29		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Barium	0.132	mg/L		0.005		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Cadmium	ND	mg/L		0.00008		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Calcium	21	mg/L		1		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Copper	0.001	mg/L		0.001		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Iron	0.04	mg/L		0.03		E200.8	12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
1-31-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW05
Lab ID: H11120150-001
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 09:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Magnesium	10	mg/L		1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Manganese	ND	mg/L		0.005	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Mercury	ND	mg/L		0.00001	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Nickel	ND	mg/L		0.01	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Potassium	ND	mg/L		1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Selenium	ND	mg/L		0.001	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Silver	ND	mg/L		0.0005	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Sodium	2	mg/L		1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Thallium	ND	mg/L		0.0002	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Vanadium	ND	mg/L		0.1	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786
Zinc	ND	mg/L		0.01	E200.8		12/14/11 20:51 / dck		ICPMS204-B_111214A : 86		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11120150-002
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:25 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1		A4500-H B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 35		R76690
Conductivity	195	umhos/cm		1		A2510 B	12/12/11 11:41 / zeg		COND_111212A : 3211212A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	12/12/11 15:33 / cmm	12/12/11 14:34-124 (14410200)_111212A : 14			15073
Solids, Total Dissolved TDS @ 180 C	136	mg/L		10		A2540 C	12/12/11 15:06 / cmm	12/12/11 14:42-124 (14410200)_111212B : 16			15075
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 34		R76690
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 34		R76690
Carbonate as CO3	ND	mg/L		4		A2320 B	12/12/11 18:59 / cmm		MAN-TECH_111212B : 34		R76690
Chloride	ND	mg/L		1		E300.0	12/12/11 22:22 / zeg		IC102-H_111212A : 51		R76698
Sulfate	1	mg/L		1		E300.0	12/12/11 22:22 / zeg		IC102-H_111212A : 51		R76698
Hardness as CaCO3	95	mg/L		1		A2340 B	12/14/11 16:15 / std		WATERCALC_111214A : 11		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.7	12/13/11 13:03 / std		ICP2-HE_111213A : 30		R76725
Calcium	25	mg/L		1		E200.7	12/13/11 13:03 / std		ICP2-HE_111213A : 30		R76725
Magnesium	8	mg/L		1		E200.7	12/13/11 13:03 / std		ICP2-HE_111213A : 30		R76725
Potassium	ND	mg/L		1		E200.7	12/13/11 13:03 / std		ICP2-HE_111213A : 30		R76725
Sodium	2	mg/L		1		E200.7	12/13/11 13:03 / std		ICP2-HE_111213A : 30		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Antimony	ND	mg/L		0.003		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Arsenic	ND	mg/L		0.003		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Barium	0.176	mg/L		0.005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Beryllium	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Cadmium	ND	mg/L		0.00008		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Calcium	26	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Chromium	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Cobalt	ND	mg/L		0.01		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Copper	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Iron	0.06	mg/L		0.03		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786

Report Definitions: RL - Analyte reporting limit.

JAN
1-31-12

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW01
Lab ID: H11120150-002
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:25 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Magnesium	9	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Manganese	ND	mg/L		0.005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Nickel	ND	mg/L		0.01		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Sodium	2	mg/L		1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786
Zinc	ND	mg/L		0.01		E200.8	12/14/11 21:24 / dck		ICPMS204-B_111214A : 91		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW06
Lab ID: H11120150-003
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 11:30 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1	A4500-H B	12/12/11 19:06 / cmm			MAN-TECH_111212B : 37		R76690
Conductivity	194	umhos/cm		1	A2510 B	12/12/11 11:42 / zeg			COND_111212A : 3311212A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	12/12/11 15:33 / cmm	12/12/11 14:34-124 (14410200)_111212A : 15				15073
Solids, Total Dissolved TDS @ 180 C	132	mg/L		10	A2540 C	12/12/11 15:06 / cmm	12/12/11 14:42-124 (14410200)_111212B : 17				15075
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4	A2320 B	12/12/11 19:06 / cmm			MAN-TECH_111212B : 36		R76690
Bicarbonate as HCO3	130	mg/L		4	A2320 B	12/12/11 19:06 / cmm			MAN-TECH_111212B : 36		R76690
Carbonate as CO3	ND	mg/L		4	A2320 B	12/12/11 19:06 / cmm			MAN-TECH_111212B : 36		R76690
Chloride	ND	mg/L		1	E300.0	12/12/11 22:35 / zeg			IC102-H_111212A : 52		R76698
Sulfate	1	mg/L		1	E300.0	12/12/11 22:35 / zeg			IC102-H_111212A : 52		R76698
Hardness as CaCO3	97	mg/L		1	A2340 B	12/14/11 16:15 / sld			WATERCALC_111214A : 12		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.7	12/13/11 13:25 / sld			ICP2-HE_111213A : 36		R76725
Calcium	26	mg/L		1	E200.7	12/13/11 13:25 / sld			ICP2-HE_111213A : 36		R76725
Magnesium	8	mg/L		1	E200.7	12/13/11 13:25 / sld			ICP2-HE_111213A : 36		R76725
Potassium	ND	mg/L		1	E200.7	12/13/11 13:25 / sld			ICP2-HE_111213A : 36		R76725
Sodium	2	mg/L		1	E200.7	12/13/11 13:25 / sld			ICP2-HE_111213A : 36		R76725
METALS, TOTAL											
Mercury	ND	ng/L		10.0	E245.7	12/19/11 14:29 / eli-c	12/19/11 11:42		SUB-C154551 : 13		C_32236
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Antimony	ND	mg/L		0.003	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Arsenic	ND	mg/L		0.003	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Barium	0.182	mg/L		0.005	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Beryllium	ND	mg/L		0.001	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Cadmium	ND	mg/L		0.00008	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Calcium	26	mg/L		1	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103
Chromium	ND	mg/L		0.001	E200.8	12/14/11 21:50 / dck	12/13/11 11:08		ICPMS204-B_111214A : 95		15103

Report Definitions: RL - Analyte reporting limit.

JAN
1-3H2

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW06

Lab ID: H11120150-003

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 12/10/11 11:30 **Date Received:** 12/12/11

Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Cobalt	ND	mg/L		0.01	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Copper	0.004	mg/L	U	0.001	E200.8		12/20/11 16:54 / dck	12/13/11 11:08	ICPMS204-B_111220A : 92		15103
Iron	0.07	mg/L		0.03	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Lead	ND	mg/L		0.0005	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Magnesium	9	mg/L		1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Manganese	ND	mg/L		0.005	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Nickel	ND	mg/L		0.01	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Potassium	ND	mg/L		1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Selenium	ND	mg/L		0.001	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Silver	ND	mg/L		0.0005	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Sodium	2	mg/L		1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Thallium	ND	mg/L		0.0002	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Vanadium	ND	mg/L		0.1	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103
Zinc	ND	mg/L		0.01	E200.8		12/14/11 21:50 / dck	12/13/11 11:08	ICPMS204-B_111214A : 95		15103

JAN
1-31-12

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response

Client Sample ID: S35SW02

Lab ID: H11120150-004

Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline

Collection Date: 12/10/11 12:20 **Date Received:** 12/12/11

Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.	J -	0.1	A4500-H B	12/12/11 19:22 / cmm			MAN-TECH_111212B : 41	R76690	
Conductivity	134	umhos/cm		1	A2510 B	12/12/11 11:42 / zeg			COND_111212A : 3411212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	12/12/11 15:34 / cmm	12/12/11 14:34-124 (14410200)_111212A : 16			15073	
Solids, Total Dissolved TDS @ 180 C	94	mg/L		10	A2540 C	12/12/11 15:07 / cmm	12/12/11 14:42-124 (14410200)_111212B : 18			15075	
INORGANICS											
Alkalinity, Total as CaCO ₃	71	mg/L		4	A2320 B	12/12/11 19:22 / cmm			MAN-TECH_111212B : 40	R76690	
Bicarbonate as HCO ₃	86	mg/L		4	A2320 B	12/12/11 19:22 / cmm			MAN-TECH_111212B : 40	R76690	
Carbonate as CO ₃	ND	mg/L		4	A2320 B	12/12/11 19:22 / cmm			MAN-TECH_111212B : 40	R76690	
Chloride	ND	mg/L		1	E300.0	12/12/11 23:16 / zeg			IC102-H_111212A : 55	R76698	
Sulfate	2	mg/L		1	E300.0	12/12/11 23:16 / zeg			IC102-H_111212A : 55	R76698	
Hardness as CaCO ₃	63	mg/L		1	A2340 B	12/14/11 16:15 / sld			WATERCALC_111214A : 13	R76752	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.7	12/13/11 13:29 / sld			ICP2-HE_111213A : 37	R76725	
Calcium	16	mg/L		1	E200.7	12/13/11 13:29 / sld			ICP2-HE_111213A : 37	R76725	
Magnesium	6	mg/L		1	E200.7	12/13/11 13:29 / sld			ICP2-HE_111213A : 37	R76725	
Potassium	ND	mg/L		1	E200.7	12/13/11 13:29 / sld			ICP2-HE_111213A : 37	R76725	
Sodium	2	mg/L		1	E200.7	12/13/11 13:29 / sld			ICP2-HE_111213A : 37	R76725	
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Antimony	ND	mg/L		0.003	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Arsenic	ND	mg/L		0.003	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Barium	0.105	mg/L		0.005	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Beryllium	ND	mg/L		0.001	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Cadmium	ND	mg/L		0.00008	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Calcium	16	mg/L		1	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Chromium	ND	mg/L		0.001	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Cobalt	ND	mg/L		0.01	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Copper	0.001	mg/L		0.001	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	
Iron	0.07	mg/L		0.03	E200.8	12/14/11 21:56 / dck			ICPMS204-B_111214A : 96	R76786	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

*JAN
1-31-12*

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW02
Lab ID: H11120150-004
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 12:20 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Magnesium	7	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Manganese	0.009	mg/L		0.005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Nickel	ND	mg/L		0.01		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Sodium	2	mg/L		1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786
Zinc	ND	mg/L		0.01		E200.8	12/14/11 21:56 / dck		ICPMS204-B_111214A : 96		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11120150-005
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 13:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A4500-H B	12/12/11 19:29 / cmm			MAN-TECH_111212B : 43	R76690	
Conductivity	224	umhos/cm		1	A2510 B	12/12/11 11:44 / zeg			COND_111212A : 3611212A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	12/12/11 15:34 / cmm	12/12/11 14:34-124 (14410200)_111212A : 17			15073	
Solids, Total Dissolved TDS @ 180 C	154	mg/L		10	A2540 C	12/12/11 15:07 / cmm	12/12/11 14:42-124 (14410200)_111212B : 20			15075	
INORGANICS											
Alkalinity, Total as CaCO ₃	75	mg/L		4	A2320 B	12/12/11 19:29 / cmm			MAN-TECH_111212B : 42	R76690	
Bicarbonate as HCO ₃	92	mg/L		4	A2320 B	12/12/11 19:29 / cmm			MAN-TECH_111212B : 42	R76690	
Carbonate as CO ₃	ND	mg/L		4	A2320 B	12/12/11 19:29 / cmm			MAN-TECH_111212B : 42	R76690	
Chloride	2	mg/L		1	E300.0	12/12/11 23:30 / zeg			IC102-H_111212A : 56	R76698	
Sulfate	34	mg/L		1	E300.0	12/12/11 23:30 / zeg			IC102-H_111212A : 56	R76698	
Hardness as CaCO ₃	105	mg/L		1	A2340 B	12/14/11 16:15 / sld			WATERCALC_111214A : 14	R76752	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.7	12/13/11 13:33 / sld			ICP2-HE_111213A : 38	R76725	
Calcium	24	mg/L		1	E200.7	12/13/11 13:33 / sld			ICP2-HE_111213A : 38	R76725	
Magnesium	11	mg/L		1	E200.7	12/13/11 13:33 / sld			ICP2-HE_111213A : 38	R76725	
Potassium	ND	mg/L		1	E200.7	12/13/11 13:33 / sld			ICP2-HE_111213A : 38	R76725	
Sodium	3	mg/L		1	E200.7	12/13/11 13:33 / sld			ICP2-HE_111213A : 38	R76725	
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Antimony	ND	mg/L		0.003	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Arsenic	ND	mg/L		0.003	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Barium	0.169	mg/L		0.005	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Beryllium	ND	mg/L		0.001	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Cadmium	0.00018	mg/L		0.00008	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Calcium	25	mg/L		1	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Chromium	ND	mg/L		0.001	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Cobalt	ND	mg/L		0.01	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Copper	ND	mg/L		0.001	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	
Iron	0.06	mg/L		0.03	E200.8	12/14/11 22:03 / dck			ICPMS204-B_111214A : 97	R76786	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
1-31-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW04
Lab ID: H11120150-005
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 13:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Magnesium	12	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Manganese	0.010	mg/L		0.005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Nickel	ND	mg/L		0.01		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Sodium	3	mg/L		1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786
Zinc	0.14	mg/L		0.01		E200.8	12/14/11 22:03 / dck		ICPMS204-B_111214A : 97		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11120150-006
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 15:00 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.1	s.u.	-	0.1	A4500-H B	12/12/11 19:36 / cmm			MAN-TECH_111212B : 45		R76690
Conductivity	227	umhos/cm		1	A2510 B	12/12/11 11:45 / zeg			COND_111212A : 3711212A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	12/12/11 15:34 / cmm	12/12/11 14:34-124 (14410200)	_111212A : 18			15073
Solids, Total Dissolved TDS @ 180 C	142	mg/L		10	A2540 C	12/12/11 15:07 / cmm	12/12/11 14:42-124 (14410200)	_111212B : 21			15075
INORGANICS											
Alkalinity, Total as CaCO ₃	76	mg/L		4	A2320 B	12/12/11 19:36 / cmm			MAN-TECH_111212B : 44		R76690
Bicarbonate as HCO ₃	92	mg/L		4	A2320 B	12/12/11 19:36 / cmm			MAN-TECH_111212B : 44		R76690
Carbonate as CO ₃	ND	mg/L		4	A2320 B	12/12/11 19:36 / cmm			MAN-TECH_111212B : 44		R76690
Chloride	2	mg/L		1	E300.0	12/12/11 23:43 / zeg			IC102-H_111212A : 57		R76698
Sulfate	34	mg/L		1	E300.0	12/12/11 23:43 / zeg			IC102-H_111212A : 57		R76698
Hardness as CaCO ₃	106	mg/L		1	A2340 B	12/14/11 16:15 / sld			WATERCALC_111214A : 15		R76752
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.7	12/13/11 13:36 / sld			ICP2-HE_111213A : 39		R76725
Calcium	24	mg/L		1	E200.7	12/13/11 13:36 / sld			ICP2-HE_111213A : 39		R76725
Magnesium	11	mg/L		1	E200.7	12/13/11 13:36 / sld			ICP2-HE_111213A : 39		R76725
Potassium	ND	mg/L		1	E200.7	12/13/11 13:36 / sld			ICP2-HE_111213A : 39		R76725
Sodium	3	mg/L		1	E200.7	12/13/11 13:36 / sld			ICP2-HE_111213A : 39		R76725
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Antimony	ND	mg/L		0.003	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Arsenic	ND	mg/L		0.003	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Barium	0.171	mg/L		0.005	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Beryllium	ND	mg/L		0.001	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Cadmium	0.00019	mg/L		0.00008	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Calcium	24	mg/L		1	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Chromium	ND	mg/L		0.001	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Cobalt	ND	mg/L		0.01	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Copper	ND	mg/L		0.001	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786
Iron	0.06	mg/L		0.03	E200.8	12/14/11 22:09 / dck			ICPMS204-B_111214A : 98		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
1-3-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35SW03
Lab ID: H11120150-006
Matrix: Surface Water

Project: UBMC Surface Water Section 35 Baseline
Collection Date: 12/10/11 15:00 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Lead	ND	mg/L		0.0005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Magnesium	12	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Manganese	0.013	mg/L		0.005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 17:01 / dck		ICPMS204-B_111220A : 93		R76896
Nickel	ND	mg/L		0.01		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Potassium	ND	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Selenium	ND	mg/L		0.001		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Silver	ND	mg/L		0.0005		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Sodium	3	mg/L		1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Thallium	ND	mg/L		0.0002		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Vanadium	ND	mg/L		0.1		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786
Zinc	0.15	mg/L		0.01		E200.8	12/14/11 22:09 / dck		ICPMS204-B_111214A : 98		R76786

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: TB HG2004 HCL EM 12/7/11
Lab ID: H11120150-007
Matrix: Trip Blank

Project: UBM/C Surface Water Section 35 Baseline
Collection Date: 12/10/11 09:45 **Date Received:** 12/12/11
Report Date: 12/30/11

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL											
Mercury	ND	ng/L		10.0		E245.7	12/19/11 14:44 / eli-c	12/19/11 11:42	SUB-C154551 : 17		C_32236

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

December 27, 2011

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11120150 Quote ID: H645 - UBMC

Project Name: UBMC Surface Water Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 7 samples for MT DEQ-Site Response on 12/12/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11120150-001	S35SW05	12/10/11 9:45	12/12/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120150-002	S35SW01	12/10/11 11:25	12/12/11	Surface Water	Same As Above
H11120150-003	S35SW06	12/10/11 11:30	12/12/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Prep for low level 245.7 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120150-004	S35SW02	12/10/11 12:20	12/12/11	Surface Water	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120150-005	S35SW04	12/10/11 13:45	12/12/11	Surface Water	Same As Above
H11120150-006	S35SW03	12/10/11 15:00	12/12/11	Surface Water	Same As Above
H11120150-007	TB HG2004 HCL EM 12/7/11	12/10/11 9:45	12/12/11	Trip Blank	Mercury, Total Prep for low level 245.7

ANALYTICAL SUMMARY REPORT

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: UBMC Surface Water Section 35 Baseline
Sample Delivery Group: H11120150

Report Date: 12/27/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

Workorder Receipt Checklist



MT DEQ-Site Response

H11120150

Login completed by: Tracy L. Lorash

Date Received: 12/12/2011

Reviewed by: BL2000\sdull

Received by: wjj

Reviewed Date: 12/14/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	°C See Comments		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

Cooler #1 received with a temperature of 0.4C and cooler #2 @ 2.3C. TI 12/12/11.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:

M D E Q

Report Mail Address:

Quake: H - 645

Invoice Address:

Sect. 35 Baseline Surface Water

Shallow Mt. gau

8415033

Hickland

Shallow Mt. gau

40L-490-5135

J. Tanaka

Project Name, PWS Permit, Etc.

Number of Containers

Air Water Soils/Solids

Vegetation Bioassay Other

DW - Drinking Water

Sample Origin

EPA/State Compliance:

Yes No

Sampler: (Please Print)

J. Tanaka

Purchase Order:

Quote/Bottle Order:

Page 50 of 52

Special Report/Formats:

DW

POTWWWWTP

State:

Other:

EDDIEDT (Electronic Data)

Format:

LEVEL IV

NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED		
R	U	S

Comments: Please contact prior to rush sample submittal for charges and scheduling - See Instruction Page	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Shipped by <u>Handed off</u>
Comments: Please contact prior to rush sample submittal for charges and scheduling - See Instruction Page	Receipt Temp <u>44</u> °C	Shipped by <u>Handed off</u>
Comments: Please contact prior to rush sample submittal for charges and scheduling - See Instruction Page	On Ice: <u>N</u>	Shipped by <u>Handed off</u>
Comments: Please contact prior to rush sample submittal for charges and scheduling - See Instruction Page	Custody Seal <u>O</u> On Bottle On Coder	Shipped by <u>Handed off</u>
Comments: Please contact prior to rush sample submittal for charges and scheduling - See Instruction Page	Intact Signature <u>N</u> <u>N</u>	Shipped by <u>Handed off</u>
Comments: Please contact prior to rush sample submittal for charges and scheduling - See Instruction Page	Signature <u>Match</u>	Shipped by <u>Handed off</u>

Standard Turnaround (TAT)

U

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40L-490-5135

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UBMC Section 35 Baseline Ground Water

SDG#: H11120194

Number of Samples: 7

Sample Matrix: (7) Groundwater

Applicable Analytes: (7) pH, Conductivity, TSS, TDS, Alkalinity: (Total Alkalinity, Bicarbonate, and Carbonate), Anions: (Chloride and Sulfate), Hardness, Dissolved Metals: (Al, Ca, Mg, K, Na), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), Total Recoverable Metals: (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn)

Reporting Tier: 3

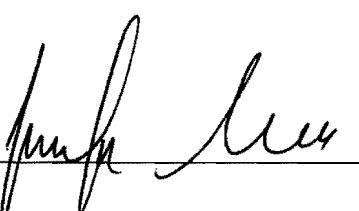
Applicable TOS#: N/A

Laboratory: Energy Laboratories

Validation Level: EPA Level III

Validator Affiliation: Portage, Inc.

Project#: UBMC

Validator:  Date Completed: 02/01/12

Portage Review:  Date Completed: 2/2/12

REPORT ORGANIZATION:

Limitations & Validation (L&V) Report UBMC Section 35 Baseline Ground Water is organized into the following five sections:

- Glossary of Terms & Method References
- Data Quality Statement
- L&V Report
- Attachment A: Laboratory Report Forms Corrected for Qualification
- Attachment B: Laboratory Case Narrative
- Attachment C: Chain of Custody Forms & Sample Receipt Checklist

GLOSSARY OF VALIDATION TERMS & METHOD VALIDATION REFERENCES

Terms:

CRDL	Contract Required Detection Limit
IDL	Instrument Detection Limit
SOW	Statement of Work
SOP	Standard Operating Procedure
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ICV	Initial Calibration Verification
CCV	Continuing Calibration Verification
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank
PB	Preparation Blank
LCS	Laboratory Control Sample
SDS	Serial Dilution Sample
SDG	Sample Delivery Group

Qualifiers:

- U -** The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.
Note: This detection limit may be elevated to a level greater than the IDL due to a detection of a target compound in the method blank, and as a result, the sample value, which was less than ten times the blank result, has been qualified 'U' as a non-detect.
- J -** The analyte was positively identified in the sample, but the associated numerical value may not be an accurate representation of the amount actually present in the environmental sample. The data should be seriously considered for decision-making and are usable for many purposes.
- R -** The data are unusable (may or may not be present). Resampling and reanalysis are necessary for verification.
- UJ -** The material was analyzed for but was not detected. The sample quantitation limit is an estimated quantity.

Reference:

The validation of this data was performed according to:

1. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA540-R-04-004, October 2004.
2. USEPA Contract Laboratory Program Statement of Work For Inorganic Analysis, Multi-Media, Multi-Concentration, Document Number ILM04.0, January 2000.

LIMITATIONS AND VALIDATION REPORT

INTRODUCTION:

The UBMC Section 35 Ground Water surface water sample results were received by Portage, Inc. in December 2011. The laboratory analytical request provided for a summary data package attached for the pH, conductivity, TSS, TDS, alkalinity: (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn), total recoverable metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, and Zn). The samples were analyzed in accordance with Standard Methods 4500 H-B, 2510B, 2540D, 2540C, 2320B, and 2340B, and USEPA Methods 300.0, and 200.8. Data validation was performed utilizing the USEPA Functional Guidelines for Inorganic Data Review. The following cross-reference has been provided to assist data users in comparing field identifications to the corresponding laboratory numbers.

Cross-Reference for UBMC Section 35 Baseline Groundwater Samples					
Field Id#:	Lab Id#:	Matrix:	Analysis Request:	Date of Collection:	Date of Laboratory Receipt:
S35MW08	H11120194-001	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/12/11	12/14/11
S35MW01	H11120194-002	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/12/11	12/14/11
S35MW09	H11120194-003	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals, Total Mercury by 245.7	12/12/11	12/14/11

Cross-Reference for UBMC Section 35 Baseline Groundwater Samples					
S35MW03	H11120194-004	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/12/11	12/14/11
S35MW06	H11120194-005	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/13/11	12/14/11
S35MW07	H11120194-006	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/13/11	12/14/11
S35MW04	H11120194-007	Groundwater	pH, Conductivity, TSS, TDS, Alkalinity (Total Alkalinity, Bicarbonate, & Carbonate), Chloride, Sulfate, Hardness, Dissolved Metals, Total Recoverable Metals	12/13/11	12/14/11

ANALYTICAL HOLDING TIMES:

The water samples associated with this SDG were collected on 12/12/2011 and 12/13/2011. The conductivity, TSS, TDS, and alkalinity (total alkalinity, bicarbonate, and carbonate) results were analyzed on 12/14/2011 within the 28-day holding time for conductivity, the 14-day holding time for alkalinity (total alkalinity, bicarbonate, and carbonate), and the 7-day holding time for TSS and TDS. The chloride and sulfate results were analyzed on 12/14/11 within the 28-day holding time. The hardness results were analyzed on 12/21/11 within the 180-day holding time. The dissolved metals were analyzed on 12/20/11 and the total recoverable metals were analyzed on 12/20/11, mercury results were analyzed on 12/20/11 within the 28-day holding time for mercury and within the 180-day holding time for the remaining analytes.

The pH samples were collected on 12/12/11 and 12/13/11, received on 12/14/11, and analyzed on 12/14/11 approximately 3 hours to 1 day after the 24-hr holding time had expired. In the professional judgment of the validator, all pH results have been qualified with a "J-" validation flag as prescribed by the USEPA Functional Guidelines and as the samples were properly preserved.

INITIAL AND CONTINUING CALIBRATION (ICV and CCV):

All ICV and CCV results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

PREPARATION BLANKS (PB):

The PB for TDS exhibited a positive detection between the MDL and the RL. The associated TDS results no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration

The PBs for TDS exhibited a positive detection between the MDL and the RL. The TDS result for S35MW09 has been qualified with a "U" validation flag due to a sample result greater than the RL, but less than five times the blank value. The remaining TDS results warrant no qualification due to positive detection in the method blank as the reported results were either greater than the RL and greater than five times the PB concentration or non-detect.

For Batch# 76896, Total Recoverable and Dissolved Metals by ICP-MS, the PB for aluminum, calcium, lead, magnesium, manganese, sodium, and zinc exhibited positive detections between the MDL and the RL. The associated aluminum, calcium, lead, magnesium, manganese, sodium, and zinc results warrant no qualification due to positive detection in the method blank as the reported results were greater than the RL and greater than five times the PB concentration.

For Batch #15132, Total Recoverable Metals by ICP-MS, the PB for aluminum, arsenic, chromium, iron, manganese, vanadium, and zinc exhibited positive detections between the MDL and the RL. Aluminum, arsenic, chromium, iron, manganese, vanadium, and zinc warrant no qualification due to positive detection in the method blank as the reported results were either greater than the RL and greater than five times the PB concentration or non-detect.

The remaining PB results were non-detect and no qualification is warranted.

INTERFERENCE CHECK SAMPLE (ICS):

All ICS results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

MATRIX SPIKE (MS)/MATRIX SPIKE DUPLICATE (MSD):

The MS/MSD recovery and RPD results were within the acceptance criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY DUPLICATE SAMPLE (LDS) RPD:

All LDS results were within the RPD criteria prescribed by the USEPA Functional Guidelines and the analytical methods.

LABORATORY CONTROL SAMPLE (LCS):

All analytes exhibited recoveries within the guidelines prescribed by the USEPA Functional Guidelines and analytical methods.

CHAIN OF CUSTODY:

The laboratory chain of custody forms are complete and accurate.

OVERALL ASSESSMENT OF DATA:

There were seven (7) groundwater field samples included in SDG# H11120194. Seven (7) field samples were analyzed for pH, conductivity, TSS, TDS, alkalinity (total alkalinity, bicarbonate, and carbonate), chloride, sulfate, hardness, dissolved metals, and total recoverable metals as outlined in the project QAPP.

All pH results have been qualified with a “J-“ validation flag to denote the reported results are estimates with a low bias due to exceeded holding times.

The TDS result for sample S35MW09 has been qualified with a “U” validation flag to denote the data is non-detect at the reported value due to a positive PB detection.

The remaining field sample data points have been assessed and remain unqualified.

Attachment A: Laboratory Report Forms

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11120194-001
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 09:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	5.8	s.u.	-	0.1	A4500-H B	12/14/11 16:53 / cmm			MAN-TECH_111214C : 17	R76758	
Conductivity	1	umhos/cm		1	A2510 B	12/14/11 10:33 / cmm			COND_111214A : 1211214A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	12/14/11 13:46 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 5			15120	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10	A2540 C	12/14/11 13:38 / cmm	12/14/11 09:41 J-124 (14410200)_111214B : 5			15119	
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4	A2320 B	12/14/11 16:53 / cmm			MAN-TECH_111214C : 16	R76758	
Bicarbonate as HCO3	ND	mg/L		4	A2320 B	12/14/11 16:53 / cmm			MAN-TECH_111214C : 16	R76758	
Carbonate as CO3	ND	mg/L		4	A2320 B	12/14/11 16:53 / cmm			MAN-TECH_111214C : 16	R76758	
Chloride	ND	mg/L		1	E300.0	12/14/11 14:08 / zeg			IC102-H_111214A : 24	R76791	
Sulfate	ND	mg/L		1	E300.0	12/14/11 14:08 / zeg			IC102-H_111214A : 24	R76791	
Hardness as CaCO3	ND	mg/L		1	A2340 B	12/21/11 12:40 / sld			WATERCALC_111221A : 1	R76898	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Antimony	ND	mg/L		0.003	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Arsenic	ND	mg/L		0.003	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Barium	ND	mg/L		0.005	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Beryllium	ND	mg/L		0.001	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Cadmium	ND	mg/L		0.00008	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Calcium	ND	mg/L		1	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Chromium	ND	mg/L		0.001	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Cobalt	ND	mg/L		0.01	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Copper	ND	mg/L		0.001	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Iron	ND	mg/L		0.05	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Lead	ND	mg/L		0.0005	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Magnesium	ND	mg/L		1	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Manganese	ND	mg/L		0.005	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Mercury	ND	mg/L		0.00001	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Nickel	ND	mg/L		0.01	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Potassium	ND	mg/L		1	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	
Selenium	ND	mg/L		0.001	E200.8	12/20/11 20:36 / dck			ICPMS204-B_111220A : 126	R76896	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW08
Lab ID: H11120194-001
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 09:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Sodium	ND	mg/L		1		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
Zinc	ND	mg/L		0.01		E200.8	12/20/11 20:36 / dck		ICPMS204-B_111220A : 126		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Antimony	ND	mg/L		0.003		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Barium	ND	mg/L		0.005		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Calcium	ND	mg/L		1		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Chromium	ND	mg/L		0.001		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Copper	ND	mg/L		0.001		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Iron	ND	mg/L		0.03		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Lead	ND	mg/L		0.0005		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Magnesium	ND	mg/L		1		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Manganese	ND	mg/L		0.005		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Nickel	ND	mg/L		0.01		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Potassium	ND	mg/L		1		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Selenium	ND	mg/L		0.001		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Silver	ND	mg/L		0.0005		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Sodium	ND	mg/L		1		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896
Zinc	ND	mg/L		0.01		E200.8	12/20/11 21:02 / dck		ICPMS204-B_111220A : 130		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11120194-002
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:10 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1	A4500-H B	12/14/11 17:00 / cmm			MAN-TECH_111214C : 19		R76758
Conductivity	279	umhos/cm		1	A2510 B	12/14/11 10:33 / cmm			COND_111214A : 1311214A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10	A2540 D	12/14/11 13:46 / cmm	12/14/11 09:42 J-124 (14410200)	_111214A : 6			15120
Solids, Total Dissolved TDS @ 180 C	164	mg/L		10	A2540 C	12/14/11 13:38 / cmm	12/14/11 09:40 J-124 (14410200)	_111214B : 7			15119
INORGANICS											
Alkalinity, Total as CaCO3	150	mg/L		4	A2320 B	12/14/11 17:00 / cmm			MAN-TECH_111214C : 18		R76758
Bicarbonate as HCO3	180	mg/L		4	A2320 B	12/14/11 17:00 / cmm			MAN-TECH_111214C : 18		R76758
Carbonate as CO3	ND	mg/L		4	A2320 B	12/14/11 17:00 / cmm			MAN-TECH_111214C : 18		R76758
Chloride	ND	mg/L		1	E300.0	12/14/11 14:21 / zeg			IC102-H_111214A : 25		R76791
Sulfate	6	mg/L		1	E300.0	12/14/11 14:21 / zeg			IC102-H_111214A : 25		R76791
Hardness as CaCO3	147	mg/L		1	A2340 B	12/21/11 12:40 / std			WATERCALC_111221A : 2		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Antimony	ND	mg/L		0.003	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Arsenic	ND	mg/L		0.003	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Barium	0.262	mg/L		0.005	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Beryllium	ND	mg/L		0.001	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Cadmium	ND	mg/L		0.00008	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Calcium	31	mg/L		1	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Chromium	ND	mg/L		0.001	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Cobalt	ND	mg/L		0.01	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Copper	ND	mg/L		0.001	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Iron	ND	mg/L		0.05	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Lead	ND	mg/L		0.0005	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Magnesium	17	mg/L		1	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Manganese	ND	mg/L		0.005	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Mercury	ND	mg/L		0.00001	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Nickel	ND	mg/L		0.01	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Potassium	1	mg/L		1	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896
Selenium	ND	mg/L		0.001	E200.8	12/20/11 22:01 / dck			ICPMS204-B_111220A : 139		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW01
Lab ID: H11120194-002
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:10 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Sodium	2	mg/L		1		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
Zinc	ND	mg/L		0.01		E200.8	12/20/11 22:01 / dck		ICPMS204-B_111220A : 139		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Antimony	ND	mg/L		0.003		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Barium	0.267	mg/L		0.005		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Calcium	32	mg/L		1		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Chromium	ND	mg/L		0.001		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Copper	ND	mg/L		0.001		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Iron	0.03	mg/L		0.03		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Lead	ND	mg/L		0.0005		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Magnesium	17	mg/L		1		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Manganese	ND	mg/L		0.005		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Mercury	ND	mg/L		0.00001		E245.1	12/30/11 14:33 / eli-b	12/21/11 13:22	SUB-B178149 : 1		B_59446
Nickel	ND	mg/L		0.01		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Potassium	1	mg/L		1		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Selenium	ND	mg/L		0.001		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Silver	ND	mg/L		0.0005		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Sodium	3	mg/L		1		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Thallium	ND	mg/L		0.0002		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Vanadium	ND	mg/L		0.1		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132
Zinc	ND	mg/L		0.01		E200.8	12/20/11 22:40 / dck	12/15/11 10:21	ICPMS204-B_111220A : 145		15132

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11120194-003
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	6.2	s.u.	5 -		0.1	A4500-H B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 21		R76758
Conductivity	2	umhos/cm			1	A2510 B	12/14/11 10:34 / cmm		COND_111214A : 1411214A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	ND	mg/L			10	A2540 D	12/14/11 13:46 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 7			15120
Solids, Total Dissolved TDS @ 180 C	14	mg/L	U		10	A2540 C	12/14/11 13:38 / cmm	12/14/11 09:40 J-124 (14410200)_111214B : 8			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	ND	mg/L		4		A2320 B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 20		R76758
Bicarbonate as HCO ₃	ND	mg/L		4		A2320 B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 20		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:05 / cmm		MAN-TECH_111214C : 20		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 14:35 / zeg		IC102-H_111214A : 26		R76791
Sulfate	ND	mg/L		1		E300.0	12/14/11 14:35 / zeg		IC102-H_111214A : 26		R76791
Hardness as CaCO ₃	ND	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 3		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Antimony	ND	mg/L		0.003		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Barium	ND	mg/L		0.005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Calcium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Chromium	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Copper	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Iron	ND	mg/L		0.05		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Lead	ND	mg/L		0.0005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Magnesium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Manganese	ND	mg/L		0.005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Nickel	ND	mg/L		0.01		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Potassium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Selenium	ND	mg/L		0.001		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JDN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW09
Lab ID: H11120194-003
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 12:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Sodium	ND	mg/L		1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
Zinc	ND	mg/L		0.01		E200.8	12/20/11 23:52 / dck		ICPMS204-B_111220A : 156		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.03		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Antimony	ND	mg/L		0.003		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Barium	ND	mg/L		0.005		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Calcium	ND	mg/L		1		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Chromium	ND	mg/L		0.001		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Copper	ND	mg/L		0.001		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Iron	ND	mg/L		0.03		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Lead	ND	mg/L		0.0005		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Magnesium	ND	mg/L		1		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Manganese	ND	mg/L		0.005		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Nickel	ND	mg/L		0.01		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Potassium	ND	mg/L		1		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Selenium	ND	mg/L		0.001		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Silver	ND	mg/L		0.0005		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Sodium	ND	mg/L		1		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896
Zinc	ND	mg/L		0.01		E200.8	12/20/11 23:58 / dck		ICPMS204-B_111220A : 157		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11120194-004
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 14:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	T	0.1	A4500-H B	12/14/11 17:20 / cmm			MAN-TECH_111214C : 25		R76758
Conductivity	319	umhos/cm		1	A2510 B	12/14/11 10:34 / cmm			COND_111214A : 1511214A-COND-PROBI		
Solids, Total Suspended TSS @ 105 C	216	mg/L		10	A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 8				15120
Solids, Total Dissolved TDS @ 180 C	192	mg/L		10	A2540 C	12/14/11 13:39 / cmm	12/14/11 09:40 J-124 (14410200)_111214B : 9				15119
INORGANICS											
Alkalinity, Total as CaCO ₃	170	mg/L		4	A2320 B	12/14/11 17:20 / cmm			MAN-TECH_111214C : 24		R76758
Bicarbonate as HCO ₃	210	mg/L		4	A2320 B	12/14/11 17:20 / cmm			MAN-TECH_111214C : 24		R76758
Carbonate as CO ₃	ND	mg/L		4	A2320 B	12/14/11 17:20 / cmm			MAN-TECH_111214C : 24		R76758
Chloride	ND	mg/L		1	E300.0	12/14/11 15:16 / zeg			IC102-H_111214A : 29		R76791
Sulfate	4	mg/L		1	E300.0	12/14/11 15:16 / zeg			IC102-H_111214A : 29		R76791
Hardness as CaCO ₃	154	mg/L		1	A2340 B	12/21/11 12:40 / std			WATERCALC_111221A : 4		R76898
METALS, DISSOLVED											
Aluminum	0.07	mg/L		0.03	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Antimony	ND	mg/L		0.003	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Arsenic	ND	mg/L		0.003	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Barium	0.310	mg/L		0.005	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Beryllium	ND	mg/L		0.001	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Cadmium	ND	mg/L		0.00008	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Calcium	45	mg/L		1	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Chromium	0.003	mg/L		0.001	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Cobalt	ND	mg/L		0.01	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Copper	ND	mg/L		0.001	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Iron	0.05	mg/L		0.05	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Lead	ND	mg/L		0.0005	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Magnesium	10	mg/L		1	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Manganese	0.007	mg/L		0.005	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Mercury	ND	mg/L		0.00001	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Nickel	ND	mg/L		0.01	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Potassium	2	mg/L		1	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896
Selenium	ND	mg/L		0.001	E200.8	12/21/11 00:18 / dck			ICPMS204-B_111220A : 160		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW03
Lab ID: H11120194-004
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/12/11 14:40 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Sodium	11	mg/L		1		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
Zinc	ND	mg/L		0.01		E200.8	12/21/11 00:18 / dck		ICPMS204-B_111220A : 160		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	3.49	mg/L		0.03		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Antimony	ND	mg/L		0.003		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Arsenic	0.003	mg/L		0.003		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Barium	0.423	mg/L		0.005		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Cadmium	0.00017	mg/L		0.00008		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Calcium	47	mg/L		1		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Chromium	0.010	mg/L		0.001		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Copper	0.007	mg/L		0.001		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Iron	3.31	mg/L		0.03		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Lead	0.0042	mg/L		0.0005		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Magnesium	12	mg/L		1		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Manganese	0.355	mg/L		0.005		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Mercury	ND	mg/L		0.00001		E245.1	01/04/12 15:51 / ell-b	01/04/12 09:51	SUB-B178275 : 4		B_59620
Nickel	ND	mg/L		0.01		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Potassium	3	mg/L		1		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Selenium	ND	mg/L		0.001		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Silver	ND	mg/L		0.0005		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Sodium	11	mg/L		1		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Thallium	ND	mg/L		0.0002		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Vanadium	ND	mg/L		0.1		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132
Zinc	0.02	mg/L		0.01		E200.8	12/21/11 00:51 / dck	12/15/11 10:21	ICPMS204-B_111220A : 165		15132

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11120194-005
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:00 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	J-	0.1	A4500-H B	12/14/11 17:27 / cmm			MAN-TECH_111214C : 27	R76758	
Conductivity	354	umhos/cm		1	A2510 B	12/14/11 10:35 / cmm			COND_111214A : 1611214A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	68	mg/L		10	A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42 J-124 (14410200)_111214A : 9			15120	
Solids, Total Dissolved TDS @ 180 C	206	mg/L		10	A2540 C	12/14/11 13:39 / cmm	12/14/11 09:40-124 (14410200)_111214B : 10			15119	
INORGANICS											
Alkalinity, Total as CaCO ₃	200	mg/L		4	A2320 B	12/14/11 17:27 / cmm			MAN-TECH_111214C : 26	R76758	
Bicarbonate as HCO ₃	240	mg/L		4	A2320 B	12/14/11 17:27 / cmm			MAN-TECH_111214C : 26	R76758	
Carbonate as CO ₃	ND	mg/L		4	A2320 B	12/14/11 17:27 / cmm			MAN-TECH_111214C : 26	R76758	
Chloride	ND	mg/L		1	E300.0	12/14/11 15:29 / zeg			IC102-H_111214A : 30	R76791	
Sulfate	1	mg/L		1	E300.0	12/14/11 15:29 / zeg			IC102-H_111214A : 30	R76791	
Hardness as CaCO ₃	196	mg/L		1	A2340 B	12/21/11 12:40 / std			WATERCALC_111221A : 5	R76898	
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Antimony	ND	mg/L		0.003	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Arsenic	ND	mg/L		0.003	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Barium	0.833	mg/L		0.005	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Beryllium	ND	mg/L		0.001	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Cadmium	ND	mg/L		0.00008	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Calcium	54	mg/L		1	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Chromium	ND	mg/L		0.001	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Cobalt	ND	mg/L		0.01	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Copper	0.002	mg/L		0.001	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Iron	ND	mg/L		0.05	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Lead	ND	mg/L		0.0005	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Magnesium	15	mg/L		1	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Manganese	ND	mg/L		0.005	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Mercury	ND	mg/L		0.00001	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Nickel	ND	mg/L		0.01	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Potassium	1	mg/L		1	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	
Selenium	ND	mg/L		0.001	E200.8	12/21/11 01:10 / dck			ICPMS204-B_111220A : 168	R76896	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW06
Lab ID: H11120194-005
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:00 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005	E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896	
Sodium	4	mg/L		1	E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896	
Thallium	ND	mg/L		0.0002	E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896	
Vanadium	ND	mg/L		0.1	E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896	
Zinc	ND	mg/L		0.01	E200.8	12/21/11 01:10 / dck		ICPMS204-B_111220A : 168		R76896	
METALS, TOTAL RECOVERABLE											
Aluminum	1.44	mg/L		0.03	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Antimony	ND	mg/L		0.003	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Arsenic	ND	mg/L		0.003	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Barium	0.915	mg/L		0.005	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Beryllium	ND	mg/L		0.001	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Cadmium	ND	mg/L		0.00008	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Calcium	55	mg/L		1	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Chromium	0.004	mg/L		0.001	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Cobalt	ND	mg/L		0.01	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Copper	0.008	mg/L		0.001	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Iron	1.45	mg/L		0.03	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Lead	0.0012	mg/L		0.0005	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Magnesium	16	mg/L		1	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Manganese	0.039	mg/L		0.005	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Mercury	ND	mg/L		0.00001	E245.1	12/28/11 15:47 / eli-b	12/28/11 14:14	SUB-B178023 : 9		B_59526	
Nickel	ND	mg/L		0.01	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Potassium	2	mg/L		1	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Selenium	ND	mg/L		0.001	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Silver	0.0012	mg/L		0.0005	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Sodium	4	mg/L		1	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Thallium	ND	mg/L		0.0002	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Vanadium	ND	mg/L		0.1	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	
Zinc	ND	mg/L		0.01	E200.8	12/21/11 01:16 / dck	12/15/11 10:21	ICPMS204-B_111220A : 169		15132	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11120194-006
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:05 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	J-	0.1		A4500-H B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 29		R76758
Conductivity	349	umhos/cm		1		A2510 B	12/15/11 13:16 / cmm		COND_111214A : 1711214A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	70	mg/L		10		A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42-124 (14410200)_111214A : 10			15120
Solids, Total Dissolved TDS @ 180 C	216	mg/L		10		A2540 C	12/14/11 13:39 / cmm	12/14/11 09:40-124 (14410200)_111214B : 11			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	200	mg/L		4		A2320 B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 28		R76758
Bicarbonate as HCO ₃	240	mg/L		4		A2320 B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 28		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:34 / cmm		MAN-TECH_111214C : 28		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 15:43 / zeg		IC102-H_111214A : 31		R76791
Sulfate	1	mg/L		1		E300.0	12/14/11 15:43 / zeg		IC102-H_111214A : 31		R76791
Hardness as CaCO ₃	195	mg/L		1		A2340 B	12/21/11 12:40 / std		WATERCALC_111221A : 6		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Antimony	ND	mg/L		0.003		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Barium	0.832	mg/L		0.005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Calcium	53	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Chromium	ND	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Copper	0.002	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Iron	ND	mg/L		0.05		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Lead	ND	mg/L		0.0005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Magnesium	15	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Manganese	ND	mg/L		0.005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Mercury	0.00001	mg/L		0.00001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Nickel	ND	mg/L		0.01		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Potassium	1	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Selenium	ND	mg/L		0.001		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW07
Lab ID: H11120194-006
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 13:05 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Sodium	4	mg/L		1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
Zinc	ND	mg/L		0.01		E200.8	12/21/11 01:36 / dck		ICPMS204-B_111220A : 172		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	1.47	mg/L		0.03		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Antimony	ND	mg/L		0.003		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Barium	0.927	mg/L		0.005		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Calcium	55	mg/L		1		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Chromium	0.004	mg/L		0.001		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Copper	0.007	mg/L		0.001		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Iron	1.45	mg/L		0.03		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Lead	0.0012	mg/L		0.0005		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Magnesium	16	mg/L		1		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Manganese	0.038	mg/L		0.005		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Mercury	ND	mg/L		0.00001		E245.1	12/28/11 15:50 / eli-b	12/28/11 14:14	SUB-B178023 : 10		B_59526
Nickel	ND	mg/L		0.01		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Potassium	2	mg/L		1		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Selenium	ND	mg/L		0.001		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Silver	0.0014	mg/L		0.0005		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Sodium	4	mg/L		1		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Thallium	ND	mg/L		0.0002		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Vanadium	ND	mg/L		0.1		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132
Zinc	ND	mg/L		0.01		E200.8	12/21/11 02:28 / dck	12/15/11 10:21	ICPMS204-B_111220A : 180		15132

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11120194-007
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 14:20 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	8.2	s.u.	-	0.1		A4500-H B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 31		R76758
Conductivity	323	umhos/cm		1		A2510 B	12/14/11 10:36 / cmm		COND_111214A : 1811214A-COND-PROB1		
Solids, Total Suspended TSS @ 105 C	78	mg/L		10		A2540 D	12/14/11 13:47 / cmm	12/14/11 09:42-124 (14410200)_111214A : 11			15120
Solids, Total Dissolved TDS @ 180 C	186	mg/L		10		A2540 C	12/14/11 13:40 / cmm	12/14/11 09:40-124 (14410200)_111214B : 12			15119
INORGANICS											
Alkalinity, Total as CaCO ₃	180	mg/L		4		A2320 B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 30		R76758
Bicarbonate as HCO ₃	220	mg/L		4		A2320 B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 30		R76758
Carbonate as CO ₃	ND	mg/L		4		A2320 B	12/14/11 17:41 / cmm		MAN-TECH_111214C : 30		R76758
Chloride	ND	mg/L		1		E300.0	12/14/11 16:24 / zeg		IC102-H_111214A : 34		R76791
Sulfate	2	mg/L		1		E300.0	12/14/11 16:24 / zeg		IC102-H_111214A : 34		R76791
Hardness as CaCO ₃	166	mg/L		1		A2340 B	12/21/11 12:40 / sld		WATERCALC_111221A : 7		R76898
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.03		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Antimony	ND	mg/L		0.003		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Barium	0.457	mg/L		0.005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Cadmium	ND	mg/L		0.00008		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Calcium	49	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Chromium	0.002	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Copper	ND	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Iron	ND	mg/L		0.05		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Lead	ND	mg/L		0.0005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Magnesium	11	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Manganese	0.009	mg/L		0.005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Mercury	ND	mg/L		0.00001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Nickel	ND	mg/L		0.01		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Potassium	4	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Selenium	ND	mg/L		0.001		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

JAN
2-1-12

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Site Response
Client Sample ID: S35MW04
Lab ID: H11120194-007
Matrix: Groundwater

Project: UBMC Groundwater Section 35 Baseline
Collection Date: 12/13/11 14:20 **Date Received:** 12/14/11
Report Date: 01/23/12

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.0005		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Sodium	2	mg/L		1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Thallium	ND	mg/L		0.0002		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Vanadium	ND	mg/L		0.1		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
Zinc	ND	mg/L		0.01		E200.8	12/21/11 02:47 / dck		ICPMS204-B_111220A : 183		R76896
METALS, TOTAL RECOVERABLE											
Aluminum	1.29	mg/L		0.03		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Antimony	ND	mg/L		0.003		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Arsenic	ND	mg/L		0.003		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Barium	0.510	mg/L		0.005		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Beryllium	ND	mg/L		0.001		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Cadmium	0.00010	mg/L		0.00008		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Calcium	51	mg/L		1		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Chromium	0.015	mg/L		0.001		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Cobalt	ND	mg/L		0.01		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Copper	0.003	mg/L		0.001		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Iron	1.94	mg/L		0.03		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Lead	0.0016	mg/L		0.0005		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Magnesium	11	mg/L		1		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Manganese	0.073	mg/L		0.005		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Mercury	ND	mg/L		0.00001		E245.1	12/28/11 15:53 / eli-b	12/28/11 14:14		SUB-B178023 : 11	B_59526
Nickel	ND	mg/L		0.01		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Potassium	4	mg/L		1		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Selenium	ND	mg/L		0.001		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Silver	ND	mg/L		0.0005		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Sodium	2	mg/L		1		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Thallium	ND	mg/L		0.0002		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Vanadium	ND	mg/L		0.1		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132
Zinc	0.01	mg/L		0.01		E200.8	12/21/11 02:54 / dck	12/15/11 10:21	ICPMS204-B_111220A : 184		15132

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Attachment B: Laboratory Case Narrative

ANALYTICAL SUMMARY REPORT

January 23, 2012

MT DEQ-Site Response
PO Box 200901
Helena, MT 59620-0901

Workorder No.: H11120194 Quote ID: H645 - UBMC

Project Name: UBMC Groundwater Section 35 Baseline

Energy Laboratories Inc Helena MT received the following 8 samples for MT DEQ-Site Response on 12/14/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11120194-001	S35MW08	12/12/11 9:40	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120194-002	S35MW01	12/12/11 12:10	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120194-003	S35MW09	12/12/11 12:40	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended

ANALYTICAL SUMMARY REPORT

H11120194-004	S35MW03	12/12/11 14:40	12/14/11	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Conductivity Mercury, Total Recoverable Hardness as CaCO ₃ Anions by Ion Chromatography pH Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Digestion, Mercury by CVAA Preparation for TDS Preparation for TSS Solids, Total Dissolved Solids, Total Suspended
H11120194-005	S35MW06	12/13/11 13:00	12/14/11	Groundwater	Same As Above
H11120194-006	S35MW07	12/13/11 13:05	12/14/11	Groundwater	Same As Above
H11120194-007	S35MW04	12/13/11 14:20	12/14/11	Groundwater	Same As Above
H11120194-008	TB Hg2004 HCL EM 12-7- 11	12/12/11 9:40	12/14/11	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise reported.

Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Site Response
Project: UBMC Groundwater Section 35 Baseline
Sample Delivery Group: H11120194

Report Date: 01/23/12

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

**Attachment C: Chain of Custody Forms and
Sample Receipt Checklist**

Workorder Receipt Checklist



MT DEQ-Site Response

H11120194

Login completed by: Tracy L. Lorash

Date Received: 12/14/2011

Reviewed by: BL2000\sdull

Received by: abb

Reviewed Date: 12/20/2011

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	0.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

Sample ID on COC is S35MW08 - bottles have S35MW8. Logged in with ID from COC. TI 12/14/11.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:

MDEQ

Report Mail Address:

Quite H-CAS

Invoice Address:

Project Name, PWS, Permit, Etc.
UBMC Groundwater(Baseline)
Contact Name: **Shelliie Haaland** Phone/Fax: **341-5033**
Email: **Shelliie.Haaland@mt.gov**

Invoice Contact & Phone:

Purchase Order:

Quote/Bottle Order:

Sample Origin **MT**
State: **MT**
EPA/State Compliance:
Yes No

Sampler: (Please Print)
Karen Dreesback
Jackie Januski

Quote/Bottle Order:
Page 50 of 59

Special Report/Formats:

- DW
 POTWWWT
 State: _____
 Other: _____
- EDD/EDT(Electronic Data)
 Format: _____
 LEVEL IV
 NELAC

Number of Containers: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

UBMC Groundwater

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

R U S H
Comments: Please
call for results to
address below @
Pvt-lab@msn.com
H 490-5135

490-5135
Hillside
Custody Seal
On Bottle
On Cooler
Intact
Signature
Match

Y N
Y N
Y N
Y N

Contact ELL prior to
RUSH sample submittal
for charges and
scheduling - See
Instruction Page

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**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
SECTION 35, LEWIS & CLARK COUNTY, MONTANA**

Identifier:	RPT-1028
Revision:	Final (0)
Page:	C-1

Appendix C

Field Notes and Logs



**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
SECTION 35, LEWIS & CLARK COUNTY, MONTANA**

Identifier:	RPT-1028
Revision:	Final (0)
Page:	C-2

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Groundwater Sampling Collection Summary

Site: Section 35 Date: 5/1/11
Time: 1020 Sampler(s): AJ, MA.
Field Sample Id#: 35MW1 Weather: Cool, clear
Preservative(s): HNO3 for dissolved metals
Number / Type of Containers this Sample: 3 - 14 DPE

Sampling Method Used: Hand pump
Photo Id# (s): X

Groundwater Analyses:

- | | | |
|-------------------|----------------------------|-----------------------|
| > Alkalinity | (Y / N) preservative _____ | pH(su) Malfunction |
| > Acidity | (Y / N) preservative _____ | SC (ustam) 27.0 |
| > Sulfate | (Y / N) preservative _____ | DO (mg/l) Malfunction |
| > Chloride | (Y / N) preservative _____ | ORP (mV) Malfunction |
| > Nitrate/Nitrite | (Y / N) preservative _____ | temperature(°C) 5.7 |
| > TDS | (Y / N) preservative _____ | |
| > TM/Cations | (Y / N) preservative _____ | |
| > DM/Cations | (Y / N) preservative _____ | |
| > Hardness | (Y / N) preservative _____ | |
| > pH | (Y / N) preservative _____ | |
| > SC | (Y / N) preservative _____ | |
- See CO C
5/1/11/11

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume needed to Purge	Volume Purged
43.06	3.61	2.82	39.45	N/A	3L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

N 47 00.622 W 112 26.661

Chain of Custody Form Number & Shipping Information:

Completed / Hand delivered



Groundwater Sampling Collection Summary

Site: Section 35 Date: 5/1/11
Time: 1200 Sampler(s): AD, MB.
Field Sample Id#: F35 MW03 Weather: Cool, Clear
Preservative(s): HNO3 for In. metals
Number / Type of Containers this Sample: 3 - 140FL

Sampling Method Used: Bladder pump

Photo Id# (s): X

Collected blank sample F35 MW03 @ 1245

Groundwater Analyses:

<input checked="" type="checkbox"/> Alkalinity	(Y / N) preservative _____	pH(su) Malfunction
<input checked="" type="checkbox"/> Acidity	(Y / N) preservative _____	SC (psia) 318.0
<input checked="" type="checkbox"/> Sulfate	(Y / N) preservative _____	DO (mg/l) Malfunction
<input checked="" type="checkbox"/> Chloride	(Y / N) preservative _____	ORP (mV) Malfunction
<input checked="" type="checkbox"/> Nitrate/Nitrite	(Y / N) preservative _____	temperature (°C) 5.6
<input checked="" type="checkbox"/> TDS	(Y / N) preservative _____	
<input checked="" type="checkbox"/> TM/Cations	(Y / N) preservative _____	
<input checked="" type="checkbox"/> DM/Cations	(Y / N) preservative _____	
<input checked="" type="checkbox"/> Hardness	(Y / N) preservative _____	
<input checked="" type="checkbox"/> pH 5/1/11	(Y / N) preservative _____	
<input checked="" type="checkbox"/> SC AD	(Y / N) preservative _____	

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume needed to Purge	Volume Purged
41.54	6.44	2.53	35.1	NA	3L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

N 42 00.614 W 112 26.961

Chain of Custody Form Number & Shipping Information:

Completed / hand delivered



Groundwater Sampling Collection Summary

Site: Section 35 Date: 5/1/11
Time: 1345 Sampler(s): AD, MB.
Field Sample Id#: 535MW07 Weather: cool, clear
Preservative(s): HNO3 for dissolved metals
Number / Type of Containers this Sample: 3 - 14015

Sampling Method Used: Bladder pump
Photo Id# (s): Y,

Collects duplicate sample 535MW07
Groundwater Analyses:

➤ Alkalinity	(Y / N) preservative	pH(su) Malfunction
➤ Acidity	(Y / N) preservative	SC(µS/cm) 22 by 3
➤ Sulfate	(Y / N) preservative	DO (mg/l) Malfunction
➤ Chloride	(Y / N) preservative	ORP (mV) Malfunction
➤ Nitrate/Nitrite	(Y / N) preservative	temperature(°C) 6. P6
➤ TDS	(Y / N) preservative	
➤ TM/Cations	(Y / N) preservative	
➤ DM/Cations	(Y / N) preservative	
➤ Hardness	(Y / N) preservative	See LOC
➤ pH	(Y / N) preservative	5/1/11, AD
➤ SC	(Y / N) preservative	

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume needed to Purge	Volume Purged
43.45	32.15	1.90	10.9	N/A	3L

Transducer Downloaded: Y,

Sample Location (latitude / longitude in deg/min/sec):

N 47 00.715 W 112 27.167

Chain of Custody Form Number & Shipping Information:

Completed / hand delivered



Groundwater Sampling Collection Summary

Site: Section 35 Date: 5/1/11
Time: 1545 Sampler(s): AD, MB.
Field Sample Id#: 535MW06 Weather: Cool, clear
~~Preservative(s): 14N01 for div. metals~~
Number / Type of Containers this Sample: 3 - HDPE

Sampling Method Used: Bladder pump
Photo Id# (s): Y1

Collected private sample 535MW07 c/602

Groundwater Analyses:

<input checked="" type="checkbox"/> Alkalinity	(Y / N) preservative _____	pH(su) Malfunction
<input checked="" type="checkbox"/> Acidity	(Y / N) preservative _____	SC (psalm) 20.4
<input checked="" type="checkbox"/> Sulfate	(Y / N) preservative _____	DO (mg/l) Malfunction
<input checked="" type="checkbox"/> Chloride	(Y / N) preservative _____	ORP (mV) Malfunction
<input checked="" type="checkbox"/> Nitrate/Nitrite	(Y / N) preservative _____	temperature (°C) 5.3 P
<input checked="" type="checkbox"/> TDS	(Y / N) preservative _____	
<input checked="" type="checkbox"/> TM/Cations	(Y / N) preservative _____	
<input checked="" type="checkbox"/> DM/Cations	(Y / N) preservative _____	5/1/11
<input checked="" type="checkbox"/> Hardness	(Y / N) preservative _____	AD
<input checked="" type="checkbox"/> pH	(Y / N) preservative _____	5-10°C
<input checked="" type="checkbox"/> SC	(Y / N) preservative _____	

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume needed to Purge	Volume Purged
69.15	12.9	2.2	55.25	N/A	3L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

N 47 00.929 W 112 26.949

Chain of Custody Form Number & Shipping Information:

Completed / hand delivered



Groundwater Sampling Collection Summary

Site: Sect. 35 Date: 4/30/11
Time: 1P30 Sampler(s): A1, AB.
Field Sample Id#: 535MW02 Weather: cool, partly cloudy
Preservative(s): HNO3, bor. dis., metal(s)
Number / Type of Containers this Sample: 3 - HDPE

Sampling Method Used: Bladder pump
Photo(s): Yes

Groundwater Analyses:

- Alkalinity (Y / N) preservative _____ pH(su) 6.59
➤ Acidity (Y / N) preservative _____ SC(µs/cm) 444
➤ Sulfate (Y / N) preservative _____ DO (mg/l) Malfunction
➤ Chloride (Y / N) preservative _____ ORP (mV) 221
➤ Nitrate/Nitrite (Y / N) preservative _____ temperature(°C) 5.3
➤ TDS (Y / N) preservative _____
➤ TM/Cations (Y / N) preservative _____
➤ DM/Cations (Y / N) preservative _____
➤ Hardness (Y / N) preservative _____
➤ pH (Y / N) preservative _____
➤ SC (Y / N) preservative _____
- So. COC
4/30/11, A1.

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume needed to Purge	Volume Purged
83.04'	73.93'	1.2'	9-11	NA	3 L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

N 47 00.549 W 112 26.393

Chain of Custody Form Number & Shipping Information:

Completed / Hand delivered



SURFACE WATER SAMPLING RECORD

PROJECT: Sact SJ Berlin MDEQ	STATION NUMBER:	unnamed trib
PROJECT NUMBER: S35	SAMPLE NUMBER:	S35 SW05
LOCATION: SW05	WEATHER:	cool cloudy wind
DATE: 4/28/11 @ 1717	SAMPLERS:	Dreesbach/Dabritz

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.64	10.09 7.42	98.46	11.5	65.33	-230.1

SAMPLES

	TSS	TDS, Alkalinity, Hardness	Carbonate, Bicarbonate	Total Metals,	Total Cations	Dissolved Metals, Sulfate, Chloride	Dissolved Cations	Total Sulfate, Total Chloride, pH, EC, acidity
Sample ID	SW05							
Time	1717							
Preservative	HNO3							
Filtered								
Container								

See COC 4/28/11

Streambank description: grassy

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: gravelly middle sand/grass sick

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: VRBC Sect. 35 Bay-line Mpls.	STATION NUMBER: SW01
PROJECT NUMBER: Sect. 35	SAMPLE NUMBER: 535 SW01
LOCATION: SW01	WEATHER: Cool, cloudy, no wind
DATE: 7/27/06 @ 0955	SAMPLERS: AD, MB

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.64	0.37	105.5	13.6	—	90.9

SAMPLES

	TSS	TDS, Alkalinity, Hardness	Carbonate, Bicarbonate	Total Metals,	Total Cations	Dissolved Metals, Sulfate, Chloride	Dissolved Cations	Total Sulfate, Total Chloride, pH, EC, acidity
Sample ID								
Time								
Preservative				See C.C.				
Filtered								
Container				7/27/06 AD				

Streambank description: Grassy bank, gravelly bottom

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: Gravelly

Water quality description: clear

Note: 535 SW006 is a duplicate of 535 SW01.



SURFACE WATER SAMPLING RECORD

PROJECT: Sect. 35 Barline MDEQ	STATION NUMBER: SW02
PROJECT NUMBER: Sect 35	SAMPLE NUMBER: S35 SW02
LOCATION: Sect. 35	WEATHER: Cool, cloudy, snow
DATE: 7/23/11 @ 1015	SAMPLERS: AD, MB

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.24	1.02	119.1	11.67	—	153.8

SAMPLES

	TSS	TDS, Alkalinity, Hardness	Carbonate, Bicarbonate	Total Metals,	Total Cations	Dissolved Metals, Sulfate, Chloride	Dissolved Cations	Total Sulfate, Total Chloride, pH, EC, acidity
Sample ID								
Time								
Preservative								
Filtered								
Container								

Streambank description: Grassy, some trees, snow

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: Silty (upto 2' deep)

Water quality description: Clear



SURFACE WATER SAMPLING RECORD

PROJECT: Sect. 35 Boundary MDEQ	STATION NUMBER: SW04
PROJECT NUMBER: Sect. 35	SAMPLE NUMBER: S35 SW04
LOCATION: Sect. 35	WEATHER: Cool, cloudy, snow
DATE: 9/29/11, e 1152	SAMPLERS: AD, MB

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.29	14.5	210	6.23	—	124

SAMPLES

	TSS	TDS, Alkalinity, Hardness	Carbonate, Bicarbonate	Total Metals,	Total Cations	Dissolved Metals, Sulfate, Chloride	Dissolved Cations	Total Sulfate, Total Chloride, pH, EC, acidity
Sample ID								
Time								
Preservative								
Filtered								
Container								

Streambank description: Rocky

Water flow (circle one): Laminar Stagnant Stagnant Turbulent Other(describe)

Stream bed description: Rocky

Water quality description: Clear



SURFACE WATER SAMPLING RECORD

PROJECT: Sect. 35 Baseline MECQ	STATION NUMBER: SW03
PROJECT NUMBER: Sect. 35	SAMPLE NUMBER: 535 SW03
LOCATION: Sect. 35	WEATHER: Cloudy, cool, snow
DATE: 7/29/11 @ 1250	SAMPLERS: AD, MB

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.89	1.8	208.1	6.04	—	158.1

SAMPLES

	TSS	TDS, Alkalinity, Hardness	Carbonate, Bicarbonate	Total Metals,	Total Cations	Dissolved Metals, Sulfate, Chloride	Dissolved Cations	Total Sulfate, Total Chloride, pH, EC, acidity
Sample ID								
Time								
Preservative			5% CDC					
Filtered								
Container				7/29/11 AM.				

Streambank description: Grassy with some trees

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: gravel and cobbles

Water quality description: clear



SITE: 535-SW05

PERSONNEL: Buhits / Dresbach

DATE: 4/28/11

Gage Reading:

TIME: 1700
intermittent

Gage Time:

Other: Unnamed trib

4.5' Total Width

Discharge calculated at office

7.7 - 4.3 = 7.7/11

7.7 - 4.2 = 3.5' total width

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	4.5'	5"	0.3'		.39	
2	5.1'		0.6'		1.35	
3	5.6'		0.7'		2.07	
4	6.1'		0.9'		1.85	
5	6.6'		0.9'		1.20	
6	7.1'		0.8'		0.61	
7	7.6'		0.3'		0.05	
8						
9	4.4		.3'		.13	
10	4.7		.5'		.69	
11	5.0		.6'		1.62	
12	5.3		.60'		1.82	
13	5.6		.7 - 6 4/28/11		1.98	
14	5.9		.8		1.92	
15	6.2		.9		1.85	
16	6.5		.9		1.32	
17	6.8		.9		.87	
18	7.1		.7		.13	
19						
20						

10

60



SITE: S 35 SW 0 & 1 A. PERSONNEL: Babits/Dreebach
DATE: 4-29-11 Gage Reading: NA
TIME: 0855 Gage Time NA
Other: Discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	1.5		.3		.09	
2	1.7		.5		.17	
3	1.9		.8		.22	
4	2.1		.9		.22	
5	2.3		.9		.76	
6	2.5		1.0		1.5	
7	2.7		1.0		2.01	
8	2.9		.9		2.08	
9	3.1		.9		1.81	
10	3.3		.9		.52	
11	3.5		.4		.32	
12						
13						
14						
15						
16						
17						
18						
19						
20						

4/29/11 NA.



Portage

SITE: Section 35

PERSONNEL: A0, M B

DATE: 4/24/11

Gage Reading: NA

TIME: 1010

Gage Time NA

Other: Bagger / deep back

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"		0.			
1	0.6		0.2		0	
2	1.1		0.6		0.07	
3	1.7		0.9		0.05	
4	2.3		0.7		0.3	
5	2.9		0.7		0.25	
6	3.5		0.8		0.30	
7	4.1		0.8		0.29	
8	4.7		0.8		0.25	
9	5.3		0.8		0.52	
10	5.9		0.8		0.47	
11	6.5		0.9		0.17	
12						
13						
14						
15						
16						
17						
18						
19						
20						

Discharge calculated at office

SITE: S 35 S W 4PERSONNEL: AO, MB.DATE: 4/29/11Gage Reading: NATIME: 1152Gage Time NAOther: discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	1.8		0.3		0.37	
2	2.6		0.7		1.64	
3	3.4		0.8		2.95	
4	4.2		0.8		3.21	
5	5.0		0.9		3.20	
6	5.8		1.1		3.30	
7	6.6		1.3		3.22	
8	7.7		1.1		3.13	
9	8.2		1.0		3.77	
10	9.0		1.0		3.15	
11	9.8		1.1		3.04	
12	10.6		1.0		3.36	
13	11.2		1.0		2.62	
14						
15						
16						
17						
18				4/29/11, AO,		
19						
20						



SITE: 535 SW03

PERSONNEL: AD, MR

DATE: 4/29/11

Gage Reading: NA

TIME: 1250

Gage Time NA

Other: Discharge calculated at office

DISCHARGE MEASUREMENTS

LWE	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
1	4		0.4		0.69 0.96	
2	5		0.6		0.27 1.55	
3	6		0.5		1.93	
4	7		0.5		1.95	
5	8		0.4		1.83	
6	9		0.3		1.71	
7	10		0.4		1.67	
8	11		0.5		1.38	
9	12		0.5		1.58	
10	13		0.6		1.81	
11	14		0.6		2.05	
12	15		0.6		2.38	
13	16		0.7		2.51	
14	17		0.9		2.29	
15	18		0.9		2.49	
16	19		0.9		2.39	
17	20		1.0		2.32	
18	21		1.0		2.37	
19	22		1.1		2.41	
20	23		1.2		2.80	
	24		1.2		2.24	
	25		1.0		1.91	
	26		1.0		1.55	
	27		1.0		1.57	



Other Observations:

Daily Contractor Quality Control Summary

Date: 5/1/11

Samples packed on ice?

Y / N

Chain of custody complete?

Y / N

Is sample custody secured?

Y / N

Sampling procedures used properly?

Y / N

Describe any deviations that occurred during field activities due to site conditions:

Were these deviations detrimental to sampling (explain)?

Other observations:

Deep snow drifts and port access only
slow, sampling.

Ad. 5/1/11



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35

Date: 6/16/11

Time: 15:50

Sampler(s): AD. 125

Field Sample Id#: 535MW01

Weather: Part. cloudy, cool

Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE

Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.57	6.69	292	55.17	55.1	267.1
			6.74		

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
43.4'	Aftersian			

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

6/16/11; 125



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 6/16/14
Time: 1050 Sampler(s): A9, M5
Field Sample Id#: 535Mw 0503 Weather: Part. cloudy, cool
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP
Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.91	6.7	329	8.6	20.5	274.4
7.83	6.62	329	8.35	68.3	276.1
7.90	6.67	330	8.21	67.2	277.3

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
42'	4.0'	—	—	84L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

17an Jolivud



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 6/6/11
Time: 1834 Sampler(s): AD, MR
Field Sample Id#: 535 MW07 Weather: Part. cloudy, cool
Preservative(s): HNO3 FOR DISSOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

535 MW07 is Duplicate

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.44	2.34	224	11.75	97.61	272.3
7.44	7.02	223	11.50	94.81	279.2
7.44	6.62	223	11.43	92.91	281.5

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
43.0'	26.0'			~4L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Hand delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35

Date: 6/17/11

Time: 0815

Sampler(s): AJ, MR

Field Sample Id#: 535 MW 02

Weather: Cloudy, cool

Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE

Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.32	5.41	283	11.86	93.9	281.1
7.31	5.73	281	12.11	95.9	285.5
7.30	5.37	280	11.79	92.5	283.6

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
68'	10.24'	—	—	24L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

1741 delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35

Date: 6/17/11 A.D.

Time: 10:38

Sampler(s): AD + 175

Field Sample Id#: 535 MW05

Weather: Cloudy, cool

Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE

Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
6.12	6.65	52	10.01	82.2	226.6
6.10	6.90	50	9.48	78.1	224
6.09	7.05	50	9.33	77.0	222.3
6.09	7.23	50	9.15	76.0	220.4

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
95.5'	13'	—	—	~5L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Hand Delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35

Date: 6/10/11

Time: 1006

Sampler(s): AD + MS

Field Sample Id#: 535MW02

Weather: Cloudy, cool

Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE

Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.34	6.52	405	11.17	90.7	287
7.36	6.50	402	11.22	91.7	287.6
7.36	6.48	406	10.74	88.0	290.2

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
83.5'	71.5'	—	—	24L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Hand delivered



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW04
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 535SW04
LOCATION: SECTION 35	WEATHER: Cool, cloudy
DATE/TIME: 6/14/14 10:1230	SAMPLERS: KA, MJ

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity ($\mu\text{s}/\text{cm}$)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.76	8.88	131	8.92	72.4	331.4

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Rocky, vegetatedWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: RockyWater quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW 03
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S35 SW 03
LOCATION: SECTION 35	WEATHER: cool, cloudy
DATE/TIME: 6/14/11, 1315	SAMPLERS: AD, LS

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.81	9.49	131	8.85	27.5	331.4

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: rocky, vegetated

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: rocky

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SWD
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S35SW01
LOCATION: SECTION 35	WEATHER: Cool, cloudy
DATE/TIME: 6/14/11 @ 1410	SAMPLERS: AV., MS

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity ($\mu\text{s}/\text{cm}$)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.65	11.10	94	8.12	74.3	318.5

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Grassy

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: rocky

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW02
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 35SW02
LOCATION: SECTION 35	WEATHER: cool, cloudy
DATE/TIME: 6/14/11 at 1450	SAMPLERS: AD, MS.

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.22	12.37	94	6.54	61.2	311.3

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Bog.

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: 1-2' deep swampy area

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW 05
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S 35 SW 05
LOCATION: SECTION 35	WEATHER: cool, cloudy
DATE/TIME: 6/18/11 @ 1600	SAMPLERS: AY, JS

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.75	12.28	99	8.01	75.71	294.5

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Grassy

Water flow (circle one) Laminar Stagnant Turbulent Other(describe)

Stream bed description: rocky

Water quality description: clear



Portage

SITE: 535 SW 4

PERSONNEL: A.D., M.J.

DATE: 6/4/6

Gage Reading: N/A

TIME: 1230

Gage Time N/A

Other: Discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	1.2		0.4		0	
2	2.4		1.2		0.65	
3	3.6		1.5		1.53	
4	4.8		1.3		2.15	
5	6.0		1.1		2.02	
6	7.2		1.3		3.25	
7	8.4		1.6		3.40	
8	9.6		1.8		2.09	
9	10.8		2.0		4.05	
10	12.0		1.9		4.06	
11	13.2		1.8		4.31	
12	14.4		1.8		4.48	
13	15.6		1.9		4.49	
14	16.8		1.8		5.15	
15	18.0		1.8		5.26	
16	19.2		1.7		4.49	
17	20.4		1.6		4.46	
18	21.6		1.4		5.14	
19	22.8		1.3		4.41	
20	24.0		1.5		3.41	
	25.2		0.8		2.23	
	26.4		0.5		1.22	
	27.6		0.3		0.72	
	28.8		0		0.69	
	30.0				0	



SITE: 535 SW03

PERSONNEL: A.D., M.J.

DATE: 6/14/11

Gage Reading: NA

TIME: 1315

Gage Time NA

Other: Discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	0.9		0.3		0.36	
2	1.6		1.4		1.6	
3	2.4		1.5		2.16	
4	3.2		1.7		1.93	
5	4.0		1.9		2.96	
6	4.8		2.1		3.62	
7	5.6		2.3		4.12	
8	6.4		2.3		3.67	
9	7.2		2.2		4.29	
10	8.0		2.4		4.05	
11	8.8		2.4		3.91	
12	9.6		2.2		3.85	
13	10.4		2.1		3.79	
14	11.2		2.0		3.33	
15	12.0		1.8		3.10	
16	12.8		2.0		3.26	
17	13.6		1.9		3.98	
18	14.4		2.1		3.49	
19	15.2		1.7		2.83	
20	16.0		2.2		3.40	

16.8	2.0	3.44
17.6	1.9	3.38
18.4	1.5	2.91
19.2	1.5	2.55
20.0	1.6	2.69
20.8	1.4	2.81
21.6	1.0	2.31
22.4	1.2	2.16
23.2	1.1	2.02
24.0	0.9	1.92
24.8	0.9	1.14
25.6	0.8	0.03

SITE: 5355 W 01PERSONNEL: AD, MSDATE: 6/14/11Gage Reading: NATIME: 1410Gage Time NAOther: Discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	0.2		0.9		0	
2	0.4		1.0		0.41	
3	0.6		1.1		0.40	
4	0.8		1.2		0.91	
5	1.0		1.1		1.23	
6	1.2		1.1		2.09	
7	1.4		1.1		2.20	
8	1.6		1.0		1.11	
9	1.8		0.9		0.41	
10	2.0		0.5		0.46	
11	2.2		0.4		0.17	
12	2.4		0.3		0.11	
13						
14						
15						
16						
17						
18						
19						
20						

SITE: 535 SWD2PERSONNEL: AD, M.S.DATE: 6/19/11Gage Reading: NATIME: 1450Gage Time NAOther: Discharge calculated at office

DISCHARGE MEASUREMENTS

LWE	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
1	4"		0.8		0	
2	6.0		6.6		0.39	
3	6.6		0.4		0.68	
4	1.2		1.2		0.50	
5	1.8		1.2		0.40	
6	2.4		1.2		0.24	
7	3.0		0.4		0.60	
8	3.6		0.6		0.24	
9	4.2		1.2		0.38	
10	4.8		1.1		0.62	
11	5.4		1.4		0.02	
12	6.0		1.3		0.15	
13						
14						
15						
16						
17						
18						
19						
20						

SITE: 5355W05PERSONNEL: AD., MSDATE: 6/14/11Gage Reading: NATIME: 1600Gage Time NAOther: Discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	0.0		0.3		0.33	
2	0.2		0.4		0.12	
3	0.4		0.2		2.23	
4	0.6		0.7		2.12	
5	0.8		0.2		2.15	
6	1.0		0.8		3.42	
7	1.2		0.9		3.74	
8	1.4		0.2		3.33	
9	1.6		0.5		4.02	
10	1.8		0.3		0.39	
11	2.0		0.2		0.03	
12						
13						
14						
15						
16						
17						
18						
19						
20						



Daily Contractor Quality Control Summary

Date: 6/17/11 Ao.

Samples packed on ice? / N

Chain of custody complete? / N

Is sample custody secured? / N

Sampling procedures used properly? / N

Describe any deviations that occurred during field activities due to site conditions:

Were these deviations detrimental to sampling (explain)?

Other observations:



Daily Contractor Quality Control Summary

Date: 6/10/11 AD

Samples packed on ice?

Y / N

Chain of custody complete?

Y / N

Is sample custody secured?

Y / N

Sampling procedures used properly?

Y / N

Describe any deviations that occurred during field activities due to site conditions:

Were these deviations detrimental to sampling (explain)?

Other observations:



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 9/21/14
Time: 1200 1250 Sampler(s): 1A0, JJ
Field Sample Id#: 5357W02 Weather: Clear, cool
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP
Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
8.20	8.32	343	9.65	103.2	276.2

* Poor recovery. Pumped dry and sampled after recharge.

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
83.0'	81.32'			

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed / Sent delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35

Date: 9/21/14

Time: 1420

Sampler(s): AD, TJ

Field Sample Id#: 5354W01

Weather: clear, cool

Preservative(s): HNO3 FOR DISSOLVED METALS, COOL ON ICE

Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

Well is artesian

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.81	6.66	279	7.57	62.2	191.8
7.80	6.65	279	7.52	61.6	191.9
7.70	6.65	272	7.44	60.8	194.0

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
—	—	—	—	—

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed / Hand Delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35

Date: 9/2/11

Time: 1615

Sampler(s): AD, JJ

Field Sample Id#: 535MW03

Weather: clear, cool

Preservative(s): HNO3 FOR DISSOLVED METALS, COOL ON ICE

Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
8.01	10.52	315	7.77	70.4	229.5
8.03	10.51	315	7.92	70.9	229.5
8.02	10.50	315	7.93	71.1	229.5

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
68.41	32.39	—	—	~ 4L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed / Hand Delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 9/21/11
Time: 1035 Sampler(s): AJ, TJ
Field Sample Id#: F35MW06 Weather: Clear, cool
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP
Photo: X-5

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.75	9.06	367	11.57	100.2	227.5
7.75	9.00	367	11.49	99.2	227.5
7.75	9.00	367	11.49	99.2	227.5
7.75	9.01	367	11.52	99.4	227.5

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
68.41	32.38	—	—	~4L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed / Hand delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 9/2, 11
Time: 1:15 Sampler(s): AD, TT
Field Sample Id#: 535 MW 04 Weather: Clear, cool
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

535 MW 04 is duplicate sample

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.89	9.95	319	12.15	106.5	160.5
7.89	9.94	318	12.16	106.6	160.7
7.89	9.94	318	12.09	106.0	160.8

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
43.25	36.19	—	—	~ 4L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed, hand delivered



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW05
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S35SW05
LOCATION: SECTION 35	WEATHER: Overcast, cool
DATE/TIME: 9/19/11, 0755	SAMPLERS: A.D., D.J.

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
8.06	8.88	175	8.6 → no	96.7	201.0

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: GrassyWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: RockyWater quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW 01
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S35 SW 01
LOCATION: SECTION 35	WEATHER: overcast, cool
DATE/TIME: 9/14/11, @ 1115	SAMPLERS: AJ, JJ

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
8.28	9.69	202	9.3	81.5	210.1

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: ConglomerateWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: RockyWater quality description: Clear

S35 SW 06 is duplicate sample



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW 32
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S35 SW02
LOCATION: SECTION 35	WEATHER: Overcast, cool
DATE/TIME: 9/19/11 @ 1300	SAMPLERS: A.D., J.J.

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
6.82	8.15	144	4.22	90.6	162.8

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Marry willowWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: SWAMPY goodWater quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: 5 W 04
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 5355 W 04
LOCATION: SECTION 35	WEATHER: overcast, cool
DATE/TIME: 9/18/11 1410	SAMPLERS: AD, JJ

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity ($\mu\text{s}/\text{cm}$)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
8.25	11.42	229	8.8-14.0	88.1	126.8 9.80

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Kocky, vegetatedWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: KockyWater quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW 3
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 535 SW 3
LOCATION: SECTION 35	WEATHER: Overcast, cool
DATE/TIME: 9/19/11	SAMPLERS: A.J., J.T.

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
8.17	11.31	227	DO-5.1 P-73	Po.5	203.1

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Rocky, vegetatedWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: RockyWater quality description: clear



Portage

SITE: 535 SW 05

PERSONNEL: A.D., J.I.

DATE: 9/19/11

Gage Reading: N/A

TIME: 1020

Gage Time: N/A

Other: Discharge calculated at office

DISCHARGE MEASUREMENTS

	Tape (ft)	Width (ft)	Depth (ft)	Area (ft ²)	Velocity (ft/sec)	Discharge (cfs)
LWE	4"					
1	2.3		0		0	
2	2.4		0.1		0	
3	2.5		0.2		0	
4	2.6		0.1		0	
5	2.7		0.1		0.17	
6	2.8		0.1		0.33	
7	2.9		0.1		0.52	
8	3.0		0.1		0.59	
9	3.1		0.1		0.29	
10	3.2		0.1		0.69	
11	3.3		0.1		0.61	
12	3.4		0.1		0.25	
13	3.5		0.1		0.25	
14	3.6		0.1		0.29	
15	3.7		0		0	
16						
17						
18						
19						
20						



SITE: SECTION 35 SWO 1

PERSONNEL: A.D., T.T.

DATE: 9/19/11

Gage Reading: NA

TIME: 1120

Gage Time NA

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	3.4	0	0
2	3.5	0	0
3	3.6	0.1	0
4	3.7	0.1	0.08
5	3.8	0.1	0.02
6	3.9	0.1	0.18
7	4.0	0.1	0.27
8	4.1	0.1	0.24
9	4.2	0.1	0.31
10	4.3	0.1	0.35
11	4.4	0.1	0.38
12	4.5	0.1	0.30
13	4.6	0.1	0.11
14	4.7	0.1	0.39
15	4.8	0.1	0.49
16	4.9	0.1	0.52
17	5.0	0.1	0.36
18	5.1	0	0
19			
20			



SITE: SECTION 35 SW 02

PERSONNEL: A0., JT

DATE: 9/19/11

Gage Reading: NA

TIME: 1300

Gage Time NA

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	8.5	0	0
2	8.0	0.4	0
3	7.5	0.3	0.07
4	7.0	0.2	0.6
5	6.5	0.2	0.69
6	6.0	0.1	0
7	5.5	0.1	0
8	5.0	0.1	0
9	4.5	0.1	0
10	4.0	0.2	0
11	3.5	0.3	0.06
12	3.0	0.3	0.09
13			
14			
15			9/19/11 A0.
16			
17			
18			
19			
20			



SITE: SECTION 35 5W54

PERSONNEL: A.D., J.J.

DATE: 9/19/11

Gage Reading: NA

TIME: 1420

Gage Time NA

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	2.5	0	0
2	3.0	0.1	0.15
3	3.5	0.1	0.21
4	4.5	0.2	0.32
5	5.0	0.2	0.30
6	5.5	0.4	1.01
7	6.0	0.3	0.95
8	6.5	0.4	1.11
9	7.0	0.4	1.44
10	7.5	0.6	1.52
11	8.0	0.5	1.79
12	8.5	0.5	1.66
13	9.0	0.5	1.39
14	9.5	0.5	1.35
15	10.0	0.5	1.26
16	10.5	0.5	1.46
17	11.0	0.4	1.42
18	11.5	6.4	0.65
19	12.0	0.3	0.53
20	12.5	0.1	0.80
	13.0	0.1	0



SITE: SECTION 35 SW03

PERSONNEL: 140, TT

DATE: 9/14/11

Gage Reading: NA

TIME: 1505

Gage Time NA

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	1	0.3	0.09
2	2	0.4	0.41
3	3	0.7	0.36
4	4	0.6	0.25
5	5	0.6	0.61
6	6	0.6	0.65
7	7	0.6	0.29
8	8	0.4	0.20
9	9	0.4	0.49
10	10	0.4	0.53
11	11	0.2	0.65
12	12	0.4	0.30
13	13	0.3	0.43
14	14	0.3	0.43
15	15	0.4	0.40
16	16	0.2	0.29
17	17	0.2	0.30
18	18	0.2	0.16
19	19	0.2	0.13
20	20	0.2	0.12
21		0.1	0.66
22		0.1	0.04
23		0.1	0
24		0.1	0



Daily Contractor Quality Control Summary

Date: 9/17/11

- Samples packed on ice? / N
Chain of custody complete? / N
Is sample custody secured? / N
Sampling procedures used properly? / N

Describe any deviations that occurred during field activities due to site conditions:

Were these deviations detrimental to sampling (explain)?

Other observations:





Daily Contractor Quality Control Summary

Date: 9/21/11

- Samples packed on ice? / N
Chain of custody complete? / N
Is sample custody secured? / N
Sampling procedures used properly? / N

Describe any deviations that occurred during field activities due to site conditions:

Were these deviations detrimental to sampling (explain)?

Other observations:



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW-5
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 535SW05
LOCATION: SECTION 35	WEATHER: cold, clear
DATE/TIME: 12/10/11, @ 0945	SAMPLERS: AD, JT

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.25	0.03	177	Frozen	Frozen	235.2

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Slow coveredWater flow (circle one): Laminar Stagnant Turbulent Other(describe)Stream bed description: rockyWater quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: SW 01
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 535SW01
LOCATION: SECTION 35	WEATHER: cold, clear
DATE/TIME: 12/10/11, 1125	SAMPLERS: 40, TT

535SW06 is duplicate sample

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
0.7	2.97	198	13.53	93.2	178.6

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: snow covered

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: rocky

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: 335SW02
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 335SW02
LOCATION: SECTION 35	WEATHER: Cold, clear
DATE/TIME: 12/10/11, 01220	SAMPLERS: AD, JJ

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
6.84	2.44	124	5.88	73.4	149.9

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Slow moving

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: Dry rock

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: 535 SW 04
PROJECT NUMBER: TO-10	SAMPLE NUMBER: 535 SW 04
LOCATION: SECTION 35	WEATHER: Clear, cool
DATE/TIME: 12/10/11 @ 1330	SAMPLERS: AJ, JT

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.76	0.09	233	96.6	14.06	142.8

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: Snow covered

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: rocky

Water quality description: clear



SURFACE WATER SAMPLING RECORD

PROJECT: MDEQ-SECTION 35 BASELINE	STATION NUMBER: S35 SW03
PROJECT NUMBER: TO-10	SAMPLE NUMBER: S35 SW03
LOCATION: SECTION 35	WEATHER: clear, cold
DATE/TIME: 12/10/16 @ 1500	SAMPLERS: AD, JJ

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.58	0.67	234	13.87	92.4	153.9

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Streambank description: snow covered

Water flow (circle one): Laminar Stagnant Turbulent Other(describe)

Stream bed description: rocky

Water quality description: clear

- Sampled ~ 30' downstream of control point
Ice to thick ice



SITE: SECTION 35 5W05

PERSONNEL: 1A9, JJ

DATE: 12/13/11

Gage Reading: —

TIME: 0955

Gage Time —

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	3.3	0	0
2	3.1	0.1	0
3	2.9	0.2	0
4	2.7	0.2	0
5	2.5	0.3	0.19
6	2.3	0.3	0.18
7	2.1	0.3	0.27
8	1.9	0.3	0.30
9	1.7	0.2	0.11
10	1.4	0	0
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			



SITE: SECTION 35 SW 1/4

PERSONNEL: AD, TJ

DATE: 12/10/11

Gage Reading: —

TIME: 1120

Gage Time: —

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	2.1	0	0
2	2.3	0.1	0
3	2.5	0.1	0
4	2.7	0.1	0
5	2.9	0.1	0.02
6	3.1	0.1	0.10
7	3.3	0.1	0.03
8	3.5	0.1	0
9	3.2	0	0
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			



SITE: SECTION 35 SW 02

PERSONNEL: AD, JTDATE: 12/10/11Gage Reading: —TIME: 1220Gage Time: —

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	1.6	0	0
2	1.8	0.3	0.62
3	2.0	0.3	0
4	2.2	0.2	0.01
5	2.4	0.2	0.01
6	2.6	0.1	0
7	2.8	0.1	0
8	3.0	0.1	0
9	3.2	0.1	6
10	3.4	0	0
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			



SITE: SECTION 35 SW 04

PERSONNEL: AD, JJ

DATE: 12/10/11

Gage Reading: —

TIME: 1400

Gage Time: —

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	4	0.5	0.18
2	4.5	0.5	0.23
3	5.0	0.6	0.34
4	5.5	0.6	0.54
5	6.0	0.6	0.71
6	6.5	0.6	0.72
7	7.0	0.5	0.90
8	7.5	0.5	0.68
9	8.0	0.4	0.92
10	8.5	0.4	0.77
11	9.0	0.5	0.67
12	9.5	0.5	0.56
13	10.0	0.3	0.35
14	10.5	0	0
15			
16			
17			
18			
19			
20			



SITE: SECTION 35 SW03

PERSONNEL: AD, TTDATE: 12/10/11Gage Reading: -TIME: 1500Gage Time: -

Other: DISCHARGE CALCULATED AT OFFICE

DISCHARGE MEASUREMENTS

	Tape (ft)	Depth (ft)	Velocity (ft/sec)
1	29.5	0	0
2	29.0	0.1	0.39
3	28	0.1	0.28
4	27	0.2	0.20
5	26	0.2	0.19
6	25	0.2	0.18
7	24	0.2	0.12
8	23	0.2	0.09
9	22	0.2	0.83
10	21	0.2	1.39
11	20	0.2	1.21
12	19	0.2	1.32
13	18	0.3	1.26
14	17	0.2	1.19
15	16	0.2	0.52
16	15	0.1	0
17	14	0.2	1.33
18	13	0.1	0.41
19	12	0.1	0.02
20	1.	0.2	1.02
	10	0.2	0.28
	9	0.3	0.89
	8	0.1	0.22
	7	0.1	0.10
	6.3	0	0



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 12/12/11
Time: 1210 Sampler(s): AD, JT
Field Sample Id#: 535 MW-1 Weather: Cold, cloudy
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP

Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.55	4.56	286	8.15	68.6	296.2
7.55	7.75	295	7.35	65.8	222.1
7.56	7.99	298	8.06	63.1	222.6
7.56	5.01	299	7.93	62.2	222.4

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
43.86'	6.19'	—	—	24L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed, Hand Delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 12/12/11
Time: 1440 Sampler(s): AJ, JJ
Field Sample Id#: 535MW03 Weather: Cold, cloudy
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP
Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (μs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.68	5.18	281	5.36	42	303.5
7.71	5.31	328	4.40	34.7	304.8
7.72	5.33	331	4.26	33.7	305.0
7.72	5.32	331	3.90	29.6	305.1

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
41.68	13.34	—	—	14L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed, hand delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 12/13/11
Time: 13:00 Sampler(s): AD, TT
Field Sample Id#: 5357Mw06 Weather: cloudy, cold
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE
5357Mw06 is Duplicate
Sampling Method Used: BLADDER PUMP
Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.60	5.25	391	10.9	85.9	242.2
7.61	5.13	394	10.73	84.5	243.1
7.61	5.09	396	10.66	83.9	243.2
7.61	5.09	395	10.7	84.0	243.3

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
60.8	36.23	—	—	~3.5L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed, hand delivered



Groundwater Sampling Collection Summary

Site: MDEQ – SECTION 35 Date: 12/13/14
Time: 1420 Sampler(s): 149, JT
Field Sample Id#: 535MW07 Weather: Cloudy, cold
Preservative(s): HNO3 FOR DISOLVED METALS, COOL ON ICE
Number / Type of Containers this Sample: 1-500ML HDPE, 2-250ML HDPE

Sampling Method Used: BLADDER PUMP
Photo: Yes

WATER QUALITY PARAMETERS

pH (SU)	Temperature (°C)	Conductivity (µs/cm)	D.O. (mg/l)	D.O. (%sat.)	ORP (mv)
7.81	2.54	355	11.34	83.2	248.9
7.81	2.50	352	11.33	83.1	248.9
7.80	2.47	355	11.26	82.6	249.1
7.80	2.48	357	11.59	83.2	249.4

SAMPLES

	TDS, TSS, Acidity, Alkalinity, Hardness, Carbonate, Bicarbonate, Total Sulfate, Total Chloride, pH, EC	Total Metals, Total Cations	Dissolved Metals, Dissolved Cations
Preservative	No	HNO3	HNO3
Filtered	No	No	Yes
Container	500ml HDPE	250ml HDPE	250ml HDPE

Water Table Information

Total Depth (Top of casing to bottom of well)	Static Water Level (Top of Casing to water level)	Stick Up (Top of casing to ground surface)	Water Column	Volume Purged
42.7'	38.69'	—	—	~3.5L

Transducer Downloaded: Yes

Sample Location (latitude / longitude in deg/min/sec):

Chain of Custody Form Number & Shipping Information:

Completed, Hand Delivered



Daily Contractor Quality Control Summary

Date: 12/10/11

- Samples packed on ice? Y / N
Chain of custody complete? Y / N
Is sample custody secured? Y / N
Sampling procedures used properly? Y / N

Describe any deviations that occurred during field activities due to site conditions:

Sampled downstream of control point (~30') @
35 fsw due to thick ice.

Were these deviations detrimental to sampling (explain)?

No

Other observations:

12/10/11 WASH



Daily Contractor Quality Control Summary

Date: 12/13/14

- Samples packed on ice? / N
Chain of custody complete? / N
Is sample custody secured? / N
Sampling procedures used properly? / N

Describe any deviations that occurred during field activities due to site conditions:

Were these deviations detrimental to sampling (explain)?

Other observations:

12/13/14 MD.



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Appendix D

Site Photographs



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S35-MW-01 5-1-11



S35-MW-02 4-30-11



S35-MW-03 5-1-11



S35-MW-04 5-1-11



S35-MW-05 4-30-11



S35-MW-06 5-1-11



S35-PZ-04 5-1-11



S35-PZ-05 5-1-11



S35-PZ-10 5-1-11



S35-PZ-22 4-30-11



S35-SW-01 4-29-11



S35-SW-03 4-29-11



S35-SW-04 4-29-11



S35-SW-05 4-28-11



S35-MW-01 6-14-11



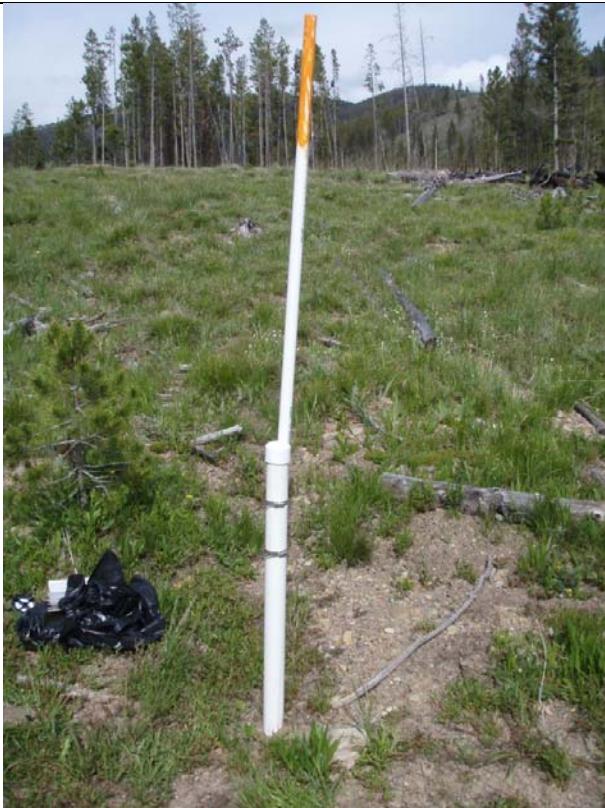
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S35-PZ-05 6-16-11



S35-PZ-10 6-16-11



S35-PZ-22 6-17-11



S35-SW-01 6-14-11



S35-SW-02 6-14-11



S35-SW-03 6-14-11



S35-SW-04 6-14-11



S35-SW-05 6-14-11



S35-MW-01 9-21-11



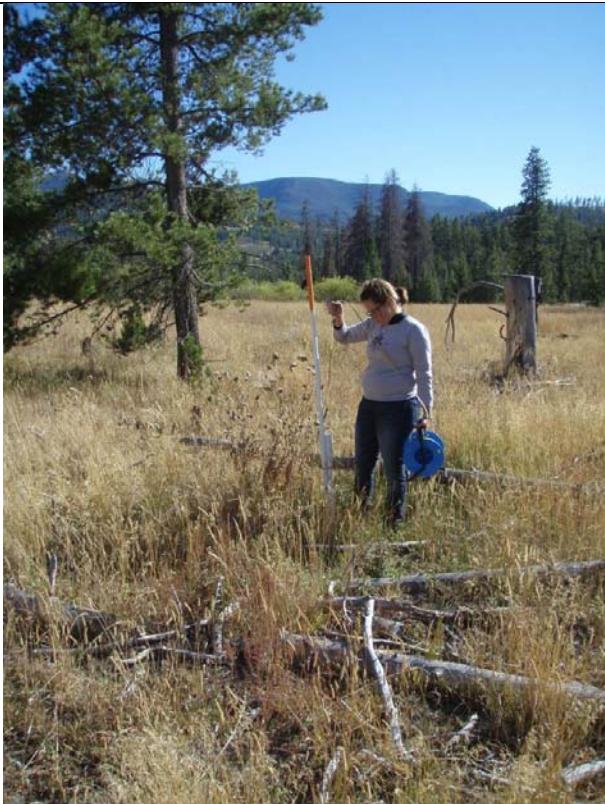
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S35-PZ-04 9-21-11



S35-PZ-05 9-21-11



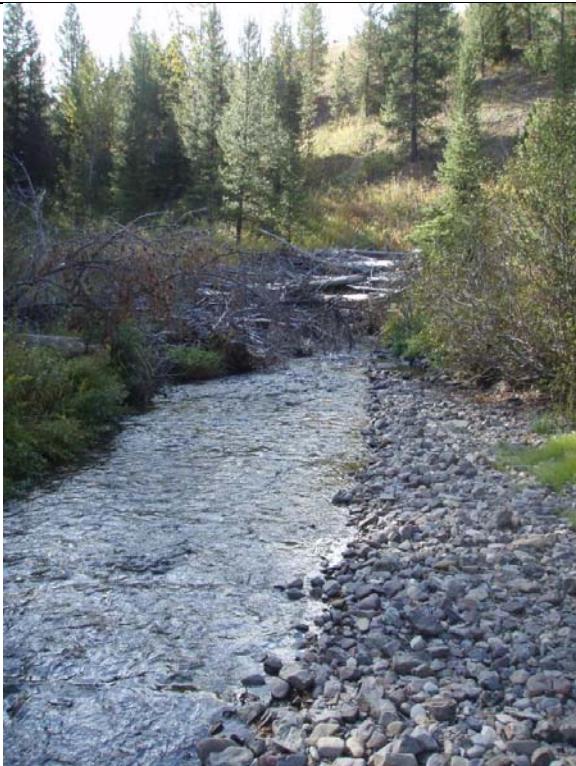
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S35-SW-04 9-21-11



S35-SW-05 9-19-11



S35-MW-01 12-12-11



S35-MW-03 12-12-11



S35-MW-04 12-12-11



S35-MW-05 12-12-11



S35-MW-06 12-12-11



S35-PZ-05 12-12-11



S35-PZ-10 12-12-11



S35-SW-01 12-10-11



S35-SW-02 12-10-11



S35-SW-03 12-10-11



S35-SW-04 12-10-11



S35-SW-05 12-10-11



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Appendix E

Data Logger Graphical Output



**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
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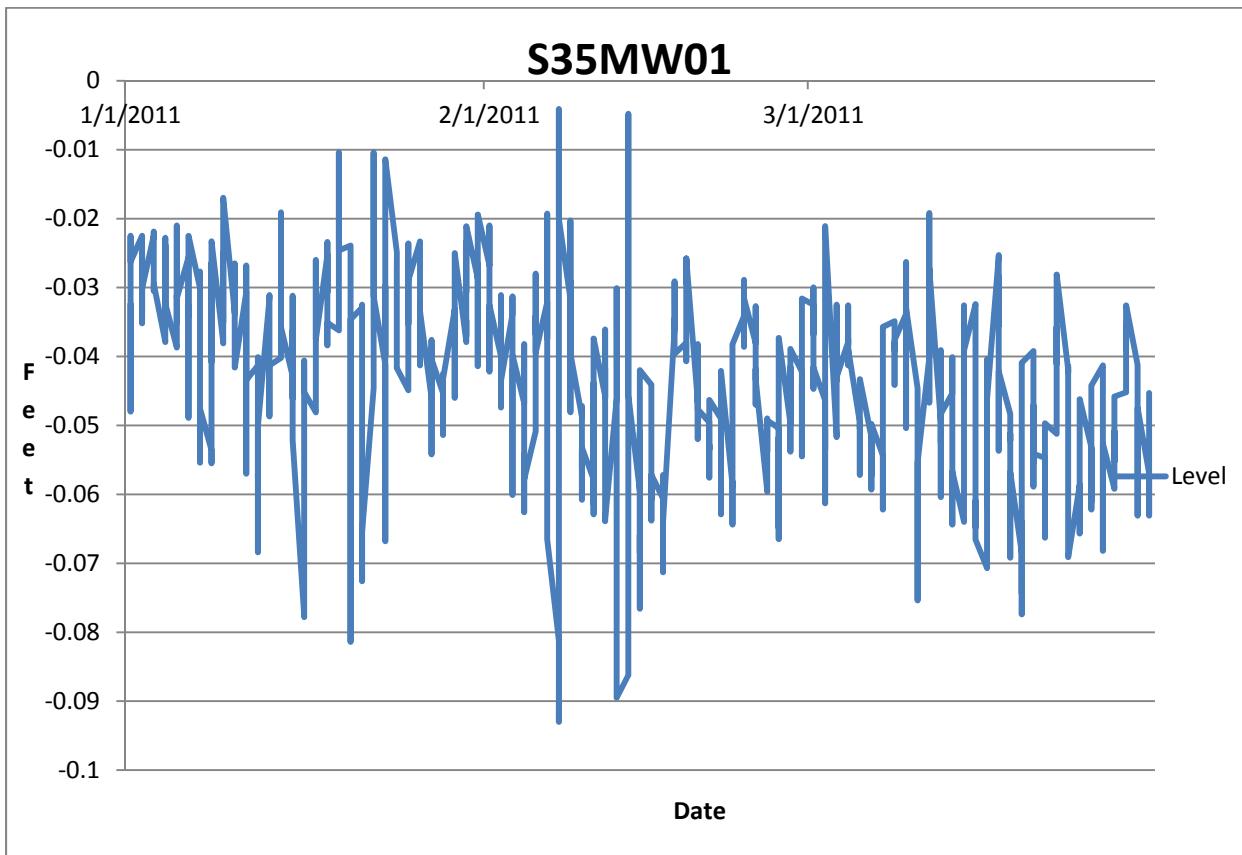
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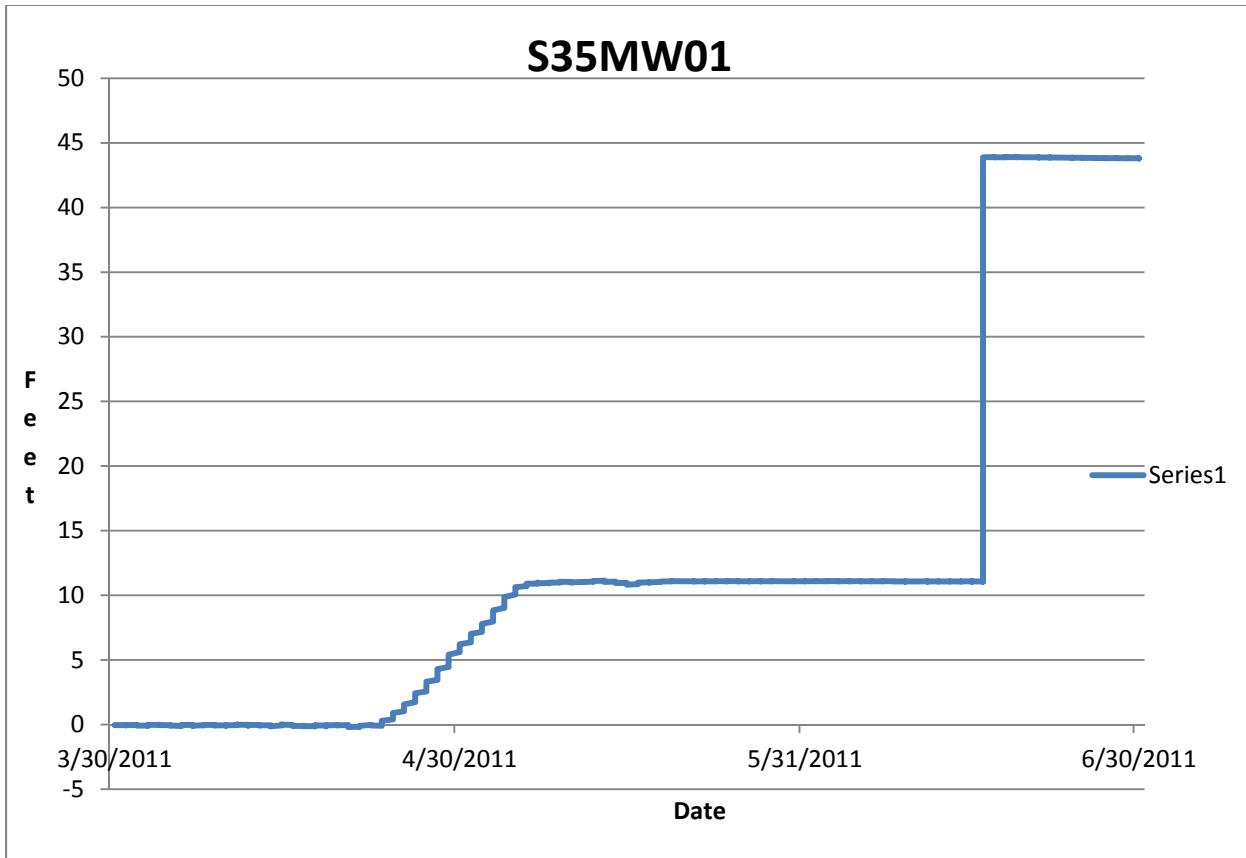
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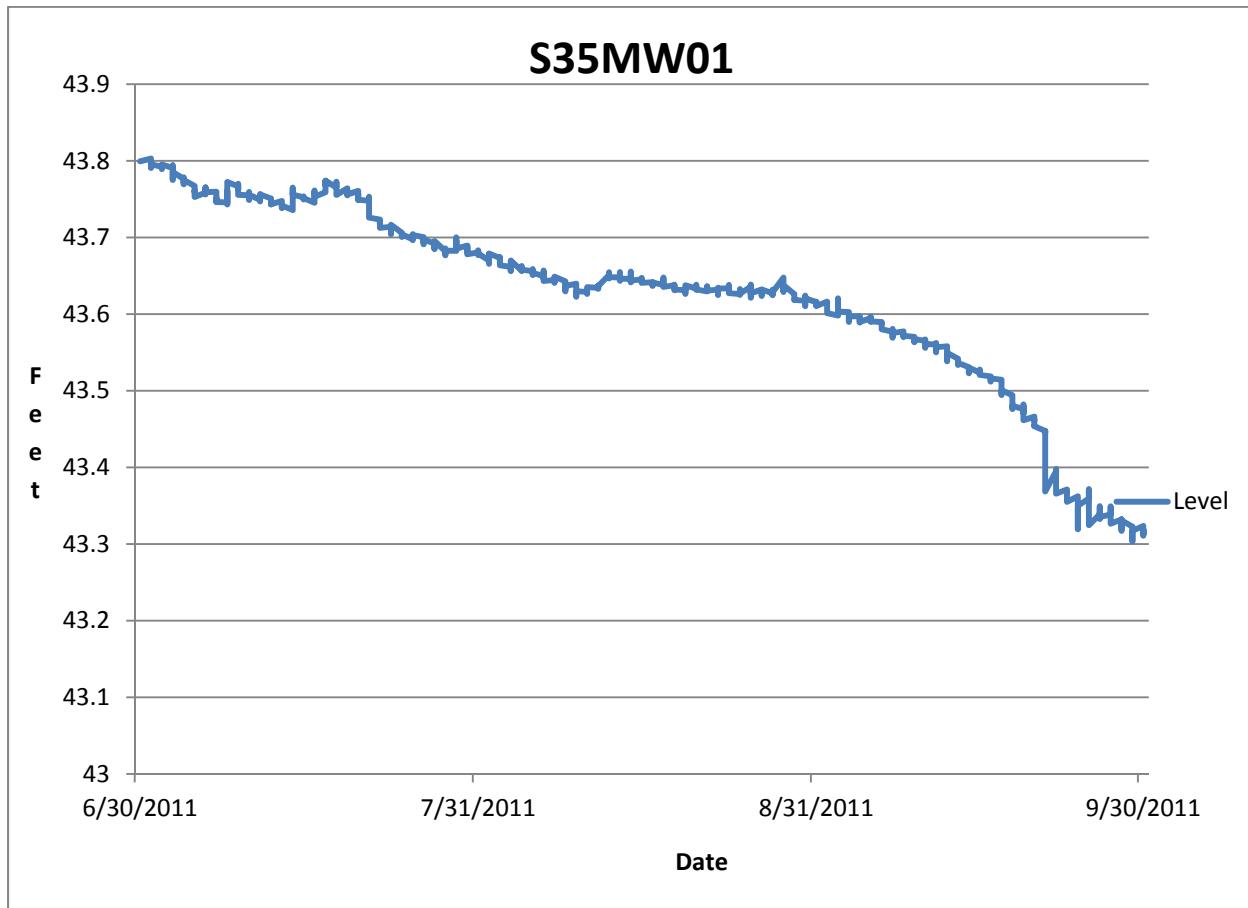
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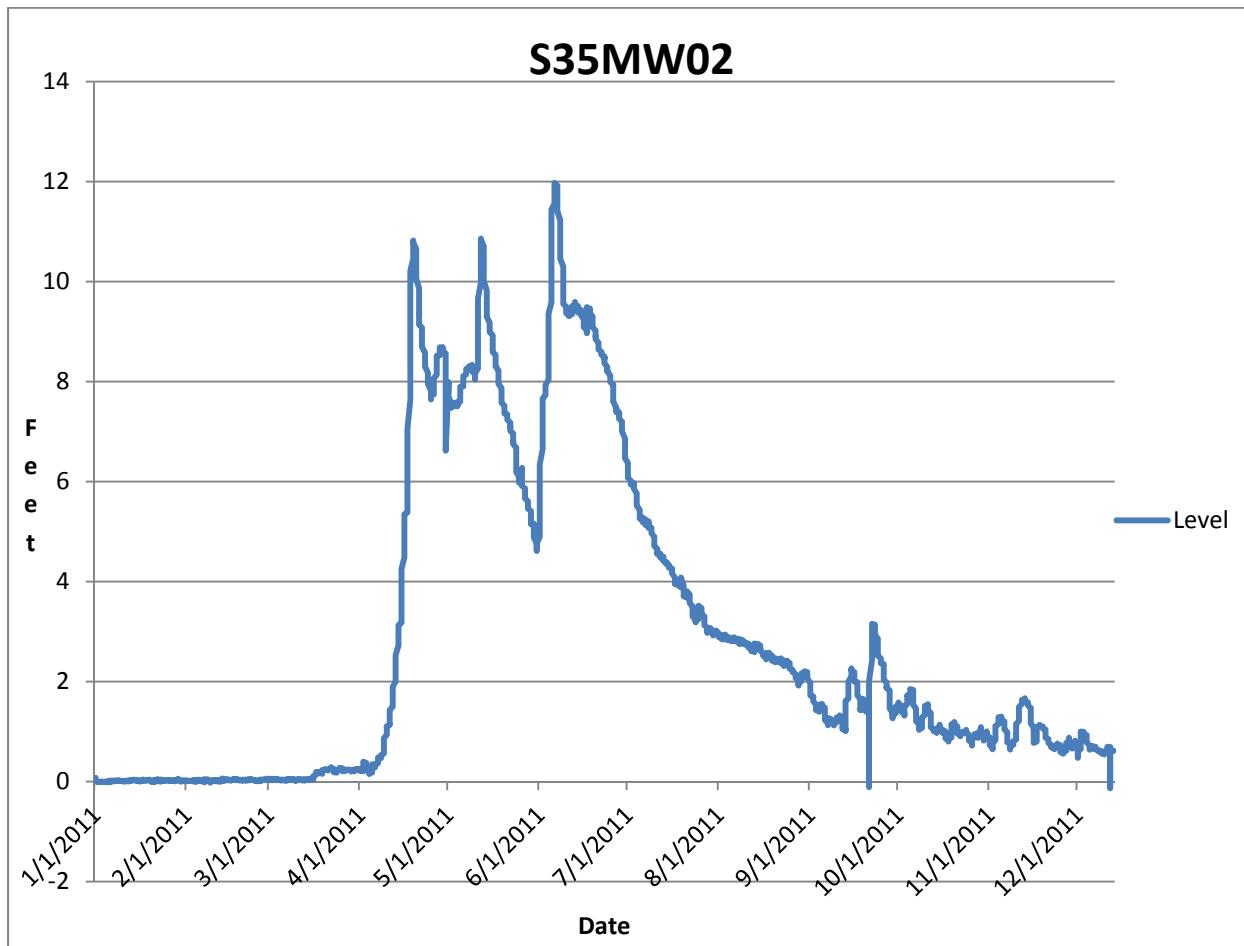
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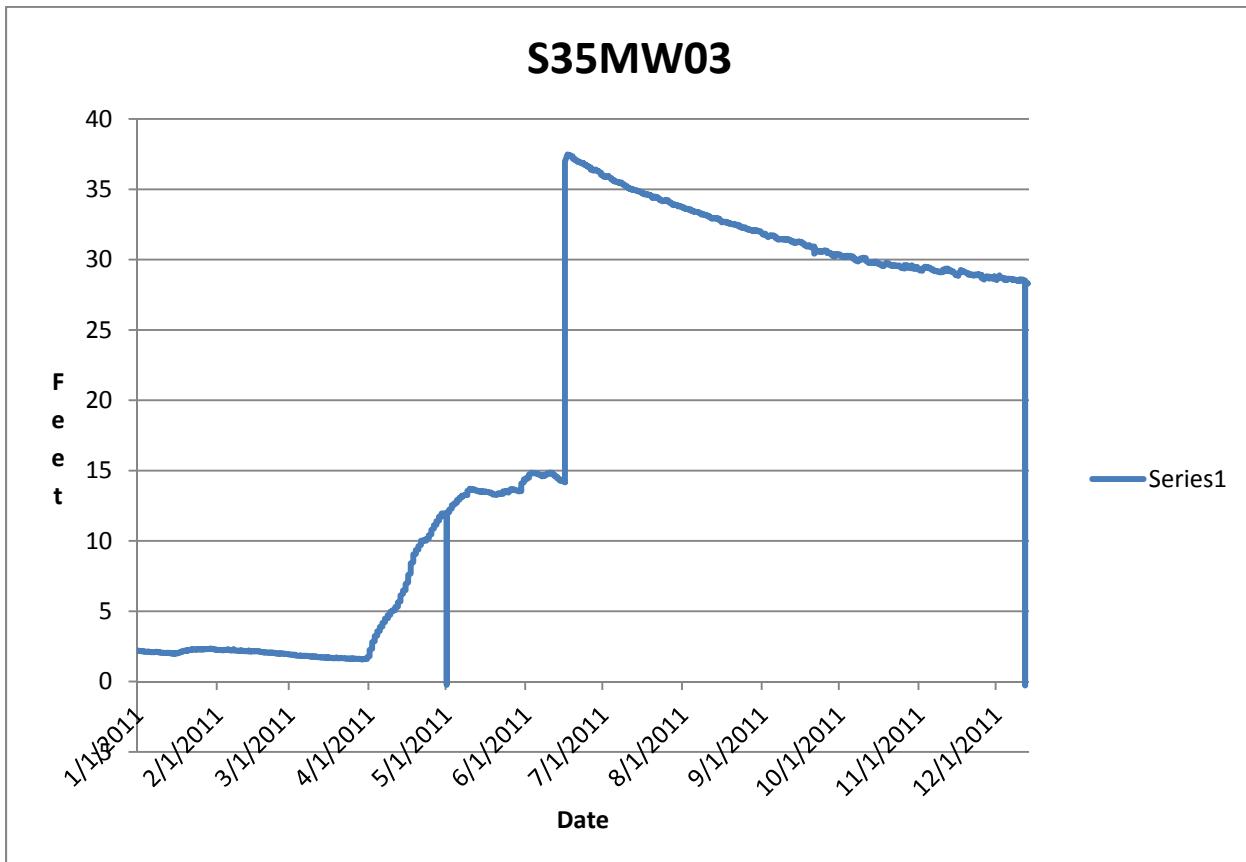
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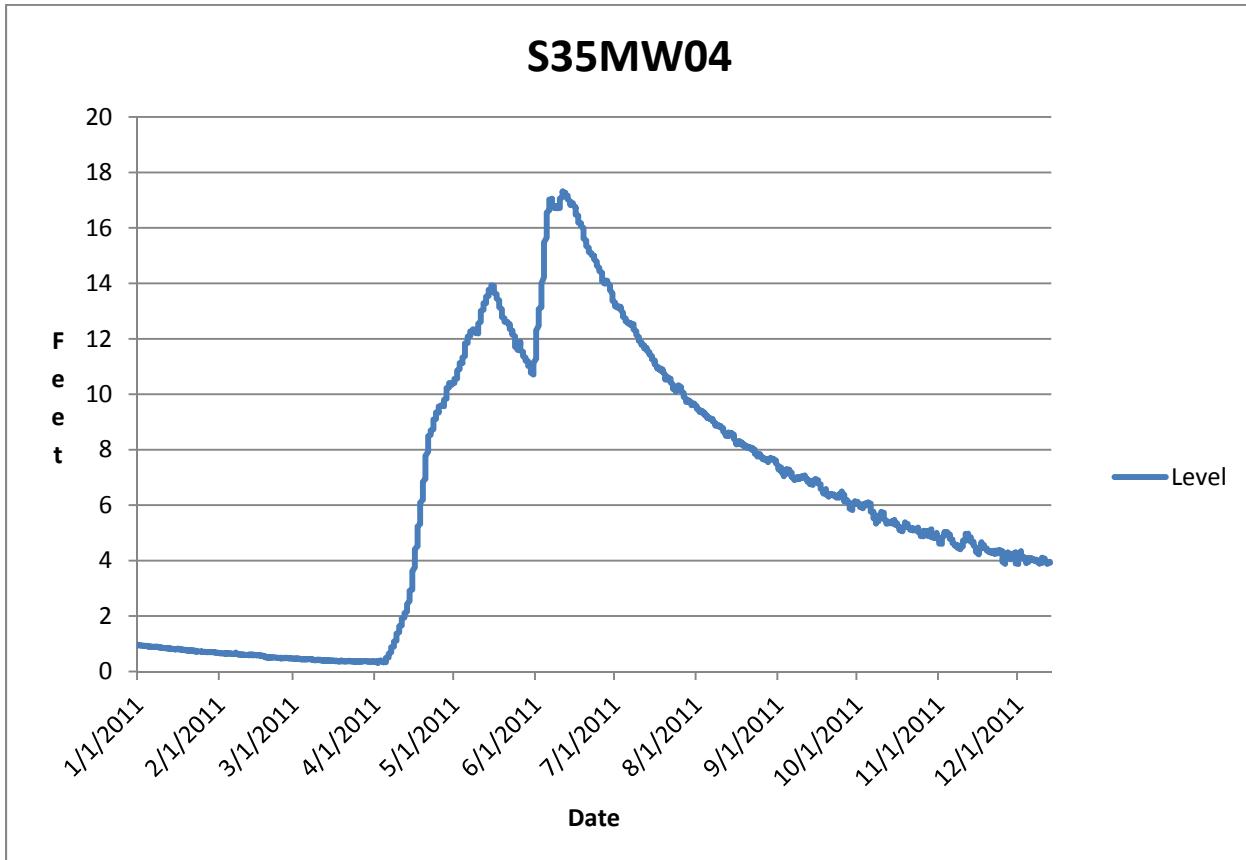




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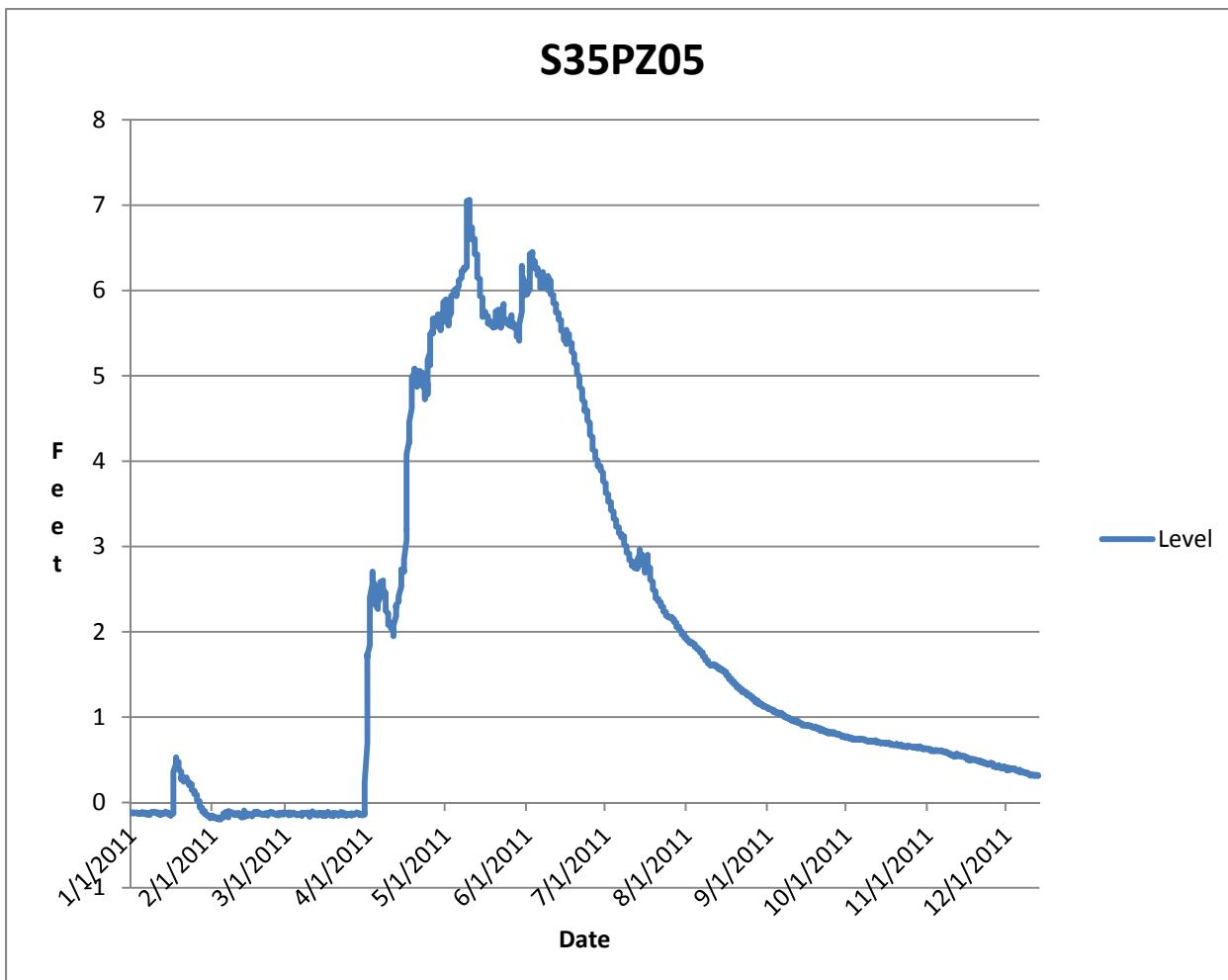




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Appendix F

Certifications



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Certificate of Analysis / QC Results

Aqua Solutions, Inc.
6913 Highway 225
Deer Park, TX 77536
281/479-2569

Packaged Product:	1460 BUFFER REFERENCE pH 4.0/RED		
Test	Target/UOM	Range	Result
PREPARED TO FORMULATION ON FILE	YES		YES
PH OF PRODUCT/SOLUTION	4.008 PH	3.998 - 4.018	4.002
Actual Temp	25.0 DEG C	24.9 - 25.1	25.0
pH Traceable to N.I.S.T. SRM'S	YES NIST PH		YES
APPEARANCE AND COLOR	CLEAR RED LIQUID APPEARANCE		PASS
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		M-1,T-I
PH NIST TRACEABLE TO SRM 189	YES SRM189		YES
PH NIST TRACEABLE TO SRM 185	YES SRM185		YES
PH NIST TRACEABLE TO SRM 187	YES SRM187		YES
Lot #	00908132		
Made	09/08/10		

RM: 1461 BUFFER REFERENCE pH 4.0/CLEAR

Lot: 0083027

RM: A4247 AMARANTH, RED #2 DYE CI#16185

Lot: 010408

RM: 1460-4LC BUFFER REFERENCE pH 4.0/RED (4LC)

Lot: 0021551

RM: 1460-4LC BUFFER REFERENCE pH 4.0/RED (4LC)

Lot: 0021551

RM: 1460-20L BUFFER REFERENCE pH 4.0/RED (20LC)

Lot: 0061860

RM: 1460-4LC BUFFER REFERENCE pH 4.0/RED (4LC)

Lot: 0021551

RM: 1460-4LC BUFFER REFERENCE pH 4.0/RED (4LC)

Lot: 0112920

Certificate of Analysis / QC Results

Aqua Solutions, Inc.
6913 Highway 225
Deer Park, TX 77536
281/479-2569

This is to certify that the product listed above has been prepared according to the agreed-upon formulation. The solutions producer has a Quality Management System which governs each step of the manufacturing process to insure the production of a consistent product. Traceability from the producer's lot numbers to the original manufacturer's lot numbers is maintained. The lot number and description of each raw material used to prepare this product are listed above. Certificates of Analysis for these individual raw materials are available upon request.

The weights and/or volumes used to prepare this product are N.I.S.T. Traceable. All balances used in the preparation of product are calibrated daily against N.I.S.T. Traceable weights. The balances are maintained and serviced on a regular basis by an outside certified company. All volumetric glassware used is N.I.S.T. Traceable and certified as meeting Class A specifications.

Unless otherwise agreed upon, all chemicals used in the preparation of this product are Reagent ACS grade.



Sherman Nelson
Quality Manager

Certificate of Analysis / QC Results

Aqua Solutions, Inc.
6913 Highway 225
Deer Park, TX 77536
281/479-2569

Packaged Product:	6950 CONDUCTIVITY STANDARD 1,000 uMHOS		
Test	Target/UOM	Range	Result
PREPARED TO FORMULATION ON FILE	YES		YES
Actual Conductivity @25°C	1000.0	999.0 - 1001.0	1000.0
Traceable to N.I.S.T. SRM 3191 -	YES		YES
APPEARANCE AND COLOR	CLEAR WATER WHITE LIQUID		PASS
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		T-71,M-47
EXPIRATION DATE	MM/DD/YY MM\DD\YYYY		10/30/11
Lot #	0100808		
Made	10/08/10		

RM: 9765 WATER DEIONIZED REAGENT GRADE

Lot: DAILY

RM: P3550 POTASSIUM CHLORIDE REAGENT ACS CRYSTAL

Lot: 018112

This is to certify that the product listed above has been prepared according to the agreed-upon formulation. The solutions producer has a Quality Management System which governs each step of the manufacturing process to insure the production of a consistent product. Traceability from the producer's lot numbers to the original manufacturer's lot numbers is maintained. The lot number and description of each raw material used to prepare this product are listed above. Certificates of Analysis for these individual raw materials are available upon request.

The weights and/or volumes used to prepare this product are N.I.S.T. Traceable. All balances used in the preparation of product are calibrated daily against N.I.S.T. Traceable weights. The balances are maintained and serviced on a regular basis by an outside certified company. All volumetric glassware used is N.I.S.T. Traceable and certified as meeting Class A specifications.

Unless otherwise agreed upon, all chemicals used in the preparation of this product are Reagent ACS grade.



Sherman Nelson
Quality Manager

Certificate of Analysis / QC Results

Aqua Solutions, Inc.
6913 Highway 225
Deer Park, TX 77536
281/479-2569

Packaged Product:	1525 BUFFER REFERENCE pH 10.0/BBLUE		
Test	Target/UOM	Range	Result
PREPARED TO FORMULATION ON FILE	YES		YES
PH OF PRODUCT/SOLUTION	10.000 PH	9.990 - 10.010	10.001
Actual Temp	25.0 DEG C	24.9 - 25.1	25.0
N.I.S.T. Traceable to SRM 185	YES		YES
N.I.S.T. TRACEABLE TO SRM 187	YES		YES
APPEARANCE AND COLOR	CLEAR BLUE LIQUID APPEARANCE		PASS
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		T-IV,M-39
Lot #	0122799		
Made	12/27/10		

RM: 1526 BUFFER REFERENCE pH 10.0/CLEAR

Lot: 0122057

RM: B7113 BROMOTHYMOL BLUE SODIUM SALT

Lot: 820416

RM: 1525-10L BUFFER REFERENCE pH 10.0/BBLUE (10LC)

Lot: 0101363

This is to certify that the product listed above has been prepared according to the agreed-upon formulation. The solutions producer has a Quality Management System which governs each step of the manufacturing process to insure the production of a consistent product. Traceability from the producer's lot numbers to the original manufacturer's lot numbers is maintained. The lot number and description of each raw material used to prepare this product are listed above. Certificates of Analysis for these individual raw materials are available upon request.

The weights and/or volumes used to prepare this product are N.I.S.T. Traceable. All balances used in the preparation of product are calibrated daily against N.I.S.T. Traceable weights. The balances are maintained and serviced on a regular basis by an outside certified company. All volumetric glassware used is N.I.S.T. Traceable and certified as meeting Class A specifications.

Unless otherwise agreed upon, all chemicals used in the preparation of this product are Reagent ACS grade.



Sherman Nelson
Quality Manager

Certificate of Analysis / QC Results

Aqua Solutions, Inc.
6913 Highway 225
Deer Park, TX 77536
281/479-2569

Packaged Product:	7800 REDOX BUFFER +229 mV /APHA 2580B (ZOBELL'S SOLUTION)		
Test	Target/UOM	Range	Result
PREPARED TO FORMULATION ON FILE	YES		YES
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		M-46,M-39,T-GH1
APPEARANCE AND COLOR	CLEAR YELLOW APPEARANCE		PASS
Lot #	1011119		
Made	01/11/11		

RM: 9765 WATER DEIONIZED REAGENT GRADE

Lot: DAILY

RM: P3550 POTASSIUM CHLORIDE REAGENT ACS CRYSTAL

Lot: 035001

RM: P3810 POTASSIUM FERRICYANIDE ACS CRYSTAL

Lot: 733310

RM: P3843 POTASSIUM FERROCYANIDE REAGENT ACS

Lot: 035605

This is to certify that the product listed above has been prepared according to the agreed-upon formulation. The solutions producer has a Quality Management System which governs each step of the manufacturing process to insure the production of a consistent product. Traceability from the producer's lot numbers to the original manufacturer's lot numbers is maintained. The lot number and description of each raw material used to prepare this product are listed above. Certificates of Analysis for these individual raw materials are available upon request.

The weights and/or volumes used to prepare this product are N.I.S.T. Traceable. All balances used in the preparation of product are calibrated daily against N.I.S.T. Traceable weights. The balances are maintained and serviced on a regular basis by an outside certified company. All volumetric glassware used is N.I.S.T. Traceable and certified as meeting Class A specifications.

Unless otherwise agreed upon, all chemicals used in the preparation of this product are Reagent ACS grade.



Sherman Nelson
Quality Manager

Certificate of Analysis / QC Results

Aqua Solutions, Inc.
6913 Highway 225
Deer Park, TX 77536
281/479-2569

Packaged Product:	1500 BUFFER REFERENCE pH 7.0/YELLOW		
Test	Target/UOM	Range	Result
PH OF PRODUCT/SOLUTION	7.000 PH	6.990 - 7.010	6.993
Actual Temp	25.0 DEG C	24.0 - 26.0	25.0
pH Traceable to N.I.S.T. SRM'S	YES NIST PH		YES
APPEARANCE AND COLOR	CLEAR YELLOW LIQUID APPEARANCE		PASS
INSTRUMENTS USED DURING PREPARATION	INSTRUMENT		T-IV,M-39,M-35
Lot #	1011190		
Made	01/11/11		

RM: 1501 BUFFER REFERENCE pH 7.0/CLEAR

Lot: 1010509

RM: T4954 THYMOL BLUE SODIUM SALT REAGENT ACS

Lot: 123410

RM: 1500-4LC BUFFER REFERENCE pH 7.0/YELLOW (4LC)

Lot: 0111542

This is to certify that the product listed above has been prepared according to the agreed-upon formulation. The solutions producer has a Quality Management System which governs each step of the manufacturing process to insure the production of a consistent product. Traceability from the producer's lot numbers to the original manufacturer's lot numbers is maintained. The lot number and description of each raw material used to prepare this product are listed above. Certificates of Analysis for these individual raw materials are available upon request.

The weights and/or volumes used to prepare this product are N.I.S.T. Traceable. All balances used in the preparation of product are calibrated daily against N.I.S.T. Traceable weights. The balances are maintained and serviced on a regular basis by an outside certified company. All volumetric glassware used is N.I.S.T. Traceable and certified as meeting Class A specifications.

Unless otherwise agreed upon, all chemicals used in the preparation of this product are Reagent ACS grade.



Sherman Nelson
Quality Manager



1830 West Airfield Drive
DFW Airport, Texas 75261

Calibration Certificate Traceability Statement

Asset Number: 1101434
MFG/Model Number: YSI/556-02
Serial Number: 09J100079
Description: MULTIPARAMETER
Customer: PORTAGE INC
Address: 1065 N. EWING
HELENA MT 59601

Customer P.O. No: CC 1434609
Rental Agreement Number: 1434609-0
Certificate Number: 143460901101434115 2

This certifies that the above product was calibrated to manufacturer's specifications using approved procedures and traceable measurement standards.

This calibration was performed by TRS-Environmental, located at 1830 West Airfield Drive DFW Airport, TX 75261.

The Quality System of TRS-Environmental is registered by UL DQS Certificate Number 10000112 to the Quality Management System Standard ISO 9001:2008.

Measurement standards are calibrated at planned intervals. Traceability is to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) or other recognized National Metrology Institute (NMI), natural physical constants, consensus standards, or by ratio type measurements using self calibrating techniques. Supporting documentation relative to traceability is available for review by appointment.

This instrument is initially being sent to the above customer calibrated and fully functional.

This certificate pertains to only the asset listed above and cannot be reproduced, except in full, without written approval of TRS-Environmental.

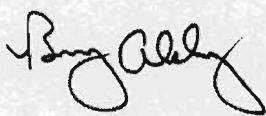
To determine the date for recalibration, the customer should use an interval that satisfies their own organization's internal quality system requirements.

Conditions of calibration are as follows:

Calibration Date: May 02, 2011

Calibrated By: TOM COLLINS

Quality Assurance:



Peel Off Sticker Here -->

TRS-Environmental 800-532-3384
ID: 1101434 Date: 05/02/11
COLLINTO



TRS Environmental
Equipment. Parts. Service. Beyond.

1830 West Airfield Drive
DFW Airport, Texas 75261

Calibration Certificate Traceability Statement

Asset Number: 1101434
MFG/Model Number: YSI/556-02
Serial Number: 09J100079
Description: MULTIPARAMETER
Customer: PORTAGE INC
Address: 1065 N. EWING
HELENA MT 59601

Customer P.O. No: CC 1434609
Rental Agreement Number: 1434609-0
Certificate Number: 143460901101434115 2

Laboratory Standards

MFG/MDL	Description	Asset	Cal. Type	Cal. Date	Due Cal
TEST SOLUTION	WATER, DEIONIZED	1091991	CNC	Feb 24, 2011	Feb 24, 2012
TEST SOLUTION	CONDUCTIVITY STANDARD	1091992	CNC	Jun 21, 2010	Jun 21, 2011
TEST SOLUTION	REDOX BUFFER (ZOBELLS)	1091993	CNC	Nov 18, 2010	Nov 18, 2011
TEST SOLUTION	BUFFER SOLUTION PH 4.0	1091995	CNC	Nov 09, 2010	Nov 09, 2012
TEST SOLUTION	BUFFER SOLUTION PH 7.0	1091996	CNC	Nov 16, 2010	Nov 16, 2012
TEST SOLUTION	BUFFER SOLUTION PH 10.0	1091997	CNC	Aug 16, 2010	Aug 16, 2012
OAKTON/03316-72	BAROMETER	1106232	CNC	Oct 18, 2010	Oct 18, 2011

Peel Off Sticker Here -->

TRS-Environmental 800-532-3384
ID: 1101434 Date: 05/02/11
COLLINTO



Environmental
Equipment. Power. Service. Beyond.

1830 West Airfield Drive
DFW Airport, Texas 75261

Certificate of Functionality

Asset Number: 1119309
MFG/Model Number: GEO/GEOCONTROL PRO-V2
Serial Number: 1113/103
Description: GEOCONTROL PRO
Customer: PORTAGE INC
Address: 1065 N. EWING
HELENA MT 59601

Customer P.O. No: CC RA # 1431903
Rental Agreement Number: 1431903-0
Certificate Number: 14319030111930911421

The Quality System of TRS-Environmental is registered by UL DQS Certificate Number 10000112 to the Quality Management System Standard ISO 9001:2008.

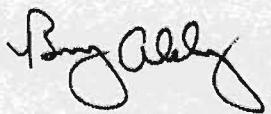
The operation of this instrument was verified before shipment. Calibration is not required.

This certificate pertains to only the asset listed above and cannot be reproduced, except in full, without written approval of TRS-Environmental.

Verified By: TOM COLLINS

Verified Date: 4/21/2011

Quality Assurance:



Peel Off Sticker Here -->

TRS-Environmental 800-532-3384
ID: 1119309 Date: 04/21/11

COLLINTO FUNC/CHECK

Certificate Print Date: April 21, 2011

Page 1 of 1

Y S I i n c o r p o r a t e d



1700/1725 Brannum Lane
Yellow Springs OH 45387 USA
tel: 937-767-7241 • fax: 937-767-9353

SonTek/YSI Inc.
San Diego, CA

CERTIFICATE OF COMPLIANCE

This is to certify that the materials, processes and finished products were controlled, tested, and accepted in accordance with our quality system and the applicable specifications.

Rick Omior
President / CEO

Delivery Number	Packing Slip Number	Date Shipped
804546	YSI-243746	11-MAY-11

Packing List

Page 1 of 2

SOLD TO
PORTAGE INC
1065 N EWING
HELENA, MT 59601, United States

SHIP TO
PORTAGE INC
1065 N EWING
HELENA, MT 59601, United States

PICKUP DATE	PAYMENT TERMS	FREIGHT TERMS	SR NUMBER	F.O.B.	TAX NAME	TAX NO.	Supplier No.
11-MAY-11	Net 30 Days	Prepaid	287140	Shipping Point	Exempt		

ORDER LINE NO.	YSI ITEM NO.	ORDER NO.	CUSTOMER ITEM NO.	PONO.	PO Line#	DESCRIPTION	HS NO.	UOM	QTY ORDERED	QTY SHIPPED	BACK ORDERED
2.1	R556	635598	Y	WARRANT		Repair Model 556 556 SN 11C100910	9801.100000	EA	1	1	0
						CUSTOMER CONCERN: PH PROBE SOCKET PIN, DO PROBE					
						HANDHELD TESTED/ PASSED BOARD TEST					
						UNIT MEETS YSI SPECS					
4.1	R5563-4	635598	Y	WARRANT		Repair Model 5563-4 5563-4 SN 11C01	9801.100000	EA	1	1	0
						CUSTOMER CONCERN: PH PROBE SOCKET PIN, DO					
						CABLE TESTED FOR SHORTS, HIGH IMPEDENCE LEAKAGE AND PHYSICAL DAMAGE/ NO PROBLEM FOUND					

(970) 669-3050 • (800)-227-4224 • FAX (970) 669-2982
PO Box 389, Loveland, CO 80539-0389



Calibration is traceable to the National Institute of Standards and Technology (NIST), Gaithersburg, MD. For product information, service, or calibration, please contact the Customer Service Department.

Calibration Technician: John D. Schmitz Date: 4-15-11

Standard:	Zero	Static Velocity	Dynamic Velocity	Level	Measured:	- <u>2.01</u>	Calibration:
Tolerance:	<u>±0.05 FPS</u>	<u>±2%</u>	<u>±0.4 in.</u>				

Type of Reading: Velocity: FPS
 Level: N/A
 IN

Sensor #: 5365

Model: 2000-S1 Serial Number: 2061542

CALIBRATION CERTIFICATE
OPEN CHANNEL



**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
SECTION 35, LEWIS & CLARK COUNTY, MONTANA**

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Page:	G-1

Appendix G

MDEQ Purge Water Disposal Flowchart



**DATA SUMMARY REPORT, 2011 ENVIRONMENTAL MONITORING,
SECTION 35, LEWIS & CLARK COUNTY, MONTANA**

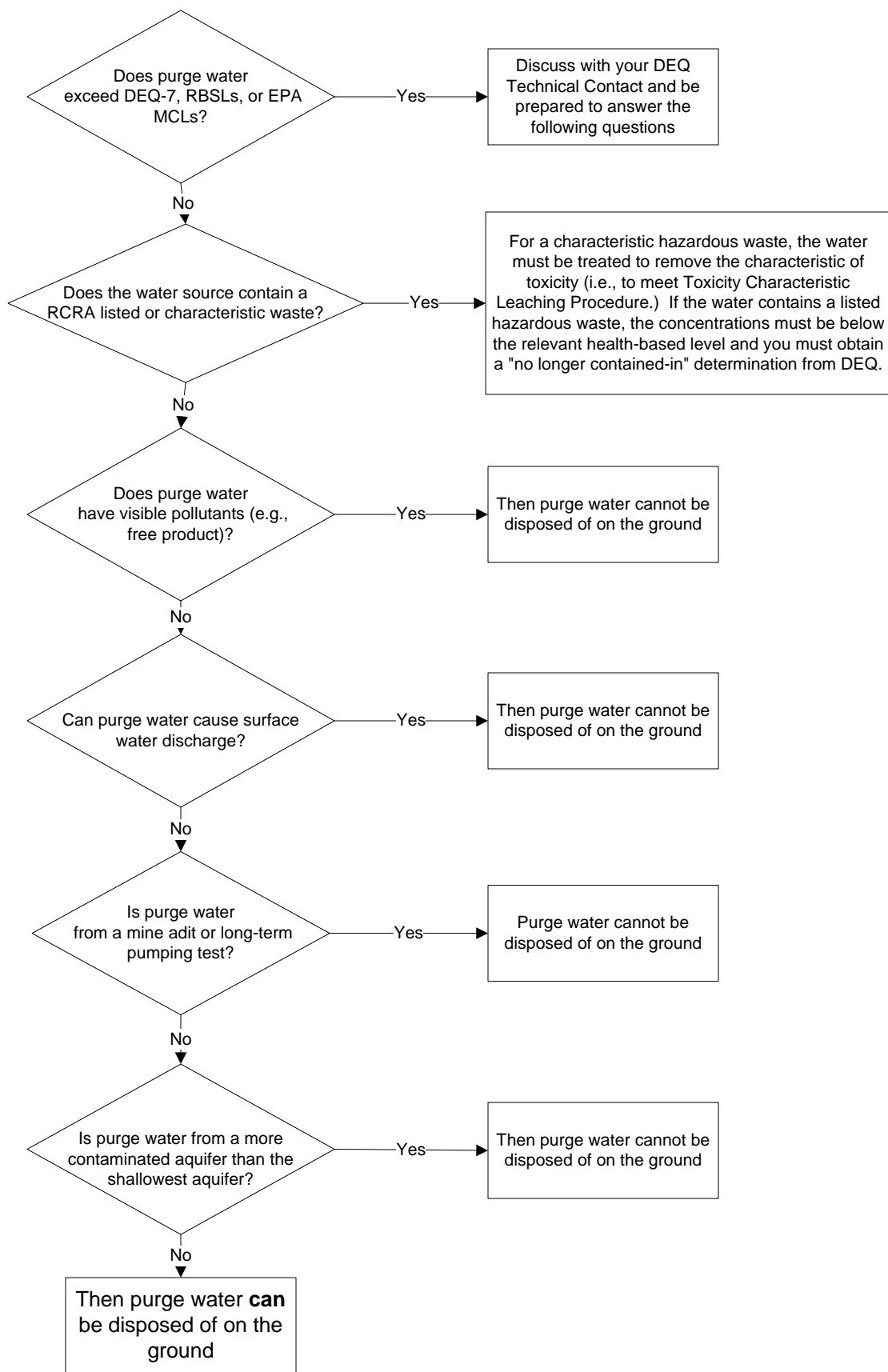
Identifier:	RPT-1028
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Page:	G-2

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PURGE WATER DISPOSAL FLOWCHART

(Untreated)

2/22/11



* More detailed requirements can be found at: <http://www.deq.mt.gov/LUST/TechGuidDocs/techguid10.pdf>



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Appendix H

Electronic Copies



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