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EPA Drinking MCL	United States Environmental Protection Agency Risk Based Screening Level Drinking Water MCL
EPA Tapwater RSL	United StatesEnvironmental Protection Agency Risk Based Screening Level Tapwater RSL
Industrial RSL	United States Environmental Protection Agency Industrial Soil Regional Screening Level
Rediential RSL	United States Environmental Protection Agency Residnetial Soil Regional Screening Level
Risk SSL	United States Environmental Protection Agency Human Health Protection of Ground Water - Risk-based Soil Screening Level
DUP	Duplicate sample
ft-bls	Feet Below Land Surface
ft-btoc	Feet Below Top of Casing
ft-amsl	Feet Above Mean Sea Level
LOD	Limit of Detection
MBSI	Montana Background Soils Investigation
n.d	Non Detect
NA	Compound was not analyzed by laboratory
TEF Value	Toxic equivalence factors
UCL	Upper Confidence Limit
UTL	Upper Tolerance Limit
µg/kg	Micrograms per Kilograms
g/cc	Grams per cubic centimeter
mg/kg	Milligrams per kilogram
% LEL	% Lower explosive limit
ppm	Parts per million
pg/g	Picogram per gram
J-	Estimated Low Bias
J	Estimated value
J+	J+ -Estimated High Bias
R	Result is Rejected
U	Indicates that analyte was not detected at the limit reported

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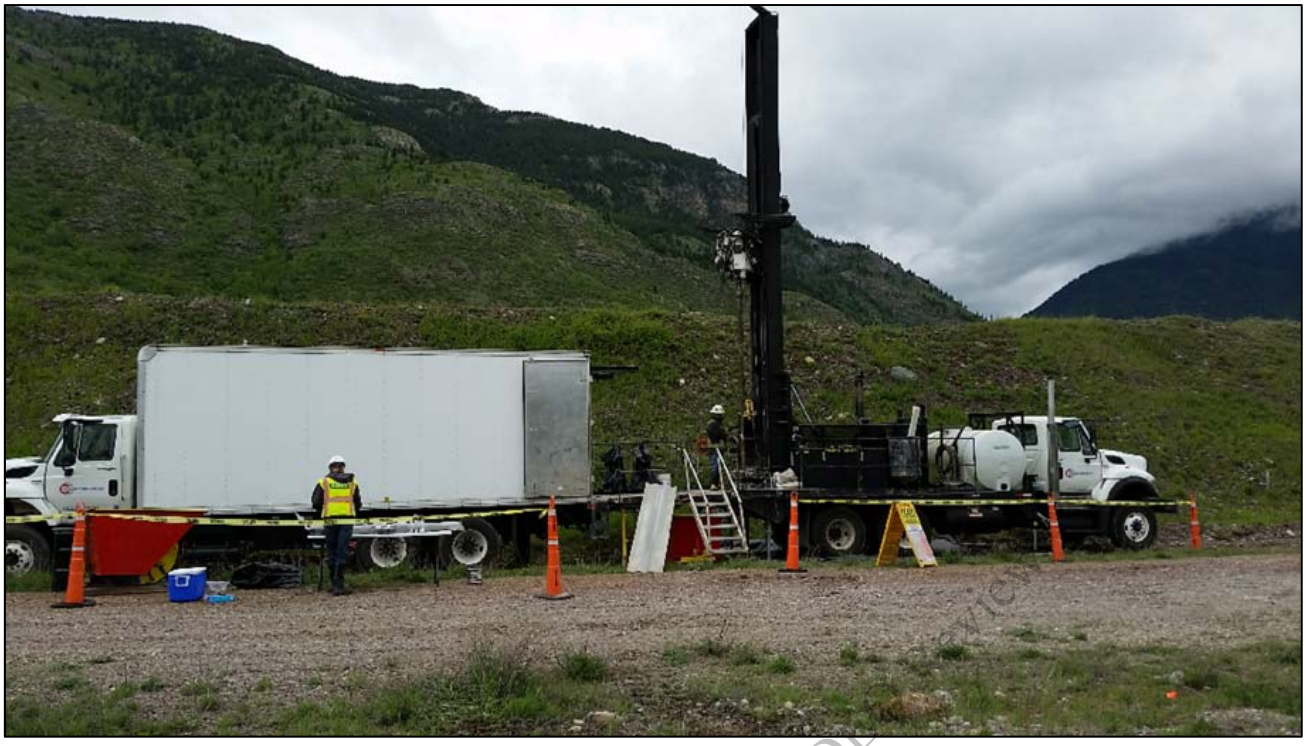

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APPENDIX B

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Report of Geophysical Investigation

Phase I Site Characterization
Columbia Falls Aluminum Company
Columbia Falls, Montana

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Phase I Site Characterization
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1.0 INTRODUCTION

A geophysical investigation was conducted by Spectrum Geophyics (Spectrum) from April 18th to April 22nd 2016, at the Columbia Falls Aluminum Company (CFAC) property located near Columbia Falls, Montana (hereinafter referred to as the Site). This work was done to assist Roux Associates in identifying the depth to groundwater, the depth to bedrock, and the depth of known landfills at the Site as part of the Phase 1 Site Characterization program for the ongoing Remedial Investigation and Feasibility Study (RI/FS). The geophysical investigation was conducted in accordance with the Geophysical Work Plan prepared by Spectrum, dated March 23, 2016. The methods used during this investigation were DC electrical resistivity and induced polarization (IP). During this survey six electrical resistivity/IP transects were established at the Site and designated as Lines 1 through 6; these transects are indicated in Figure 1. A discussion of the equipment used during this investigation is presented in Section 2.0, background is presented in Section 3.0, the methods are presented in Section 4.0, field procedures are presented in Section 5.0, data processing is presented in Section 6.0, the results and interpretation are presented in Section 7.0, and limitations are presented in Section 8.0.

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2.0 EQUIPMENT

Electrical resistivity and IP field equipment consisted of the Advanced Geosciences SuperSting R8/IP system (SuperSting), passive electrodes and associated cabling. The Advanced Geosciences EarthImager® software package (AGI, 2010) was used to process the resistivity and IP data. This equipment is designed such that the data are collected in meters and then converted to feet during the data processing stage. Utility locators and a Fisher M-Scope were used to locate utilities and shallow metallic features along the designated transects.

3.0 BACKGROUND

Six transect locations were designated by Roux Associates; these transects are indicated in Figure 1.

Groundwater was known to be present at the Site, and several wells existed at the time of the survey. Based on groundwater measurements made in May of 2016 the water table was expected to be within 100 feet of the ground surface along most of the transects. Bedrock at the Site was less well determined. As stated in the RI/FS Work Plan: "Based on interpretation of the limited well logs from the Site, depth to bedrock is estimated to vary from 150 feet to greater than 300 feet across the majority of the Site depending on the proximity to the neighboring mountains and the Flathead River. In areas to the east of the Site near Teakettle Mountain, depth to bedrock is likely less than 150 ft. In the southern

portion of the Site near the Flathead River, depth to bedrock may be significantly deeper than 300 feet." The lateral boundaries of the landfills were known at the time of the survey; however the depth of waste in each landfill location was not known with certainty. Based on the limited available information regarding landfill depths that was available during preparation of the RI/FS Work Plan, the estimated depth of waste materials in the five landfills located within the area of Geophysical Survey was:

- West Landfill – 65 ft below landfill surface
- Center Landfill – 15 to 20 ft
- East Landfill – 30 to 40 ft
- Wet Scrubber Pond – Unknown depth
- Sanitary Landfill – Unknown depth

4.0 METHODS

4.1 Electrical Resistivity and IP

DC resistivity and IP were chosen for this survey as these methods are very effective in the delineation of changes in subsurface materials. In particular, these methods are sensitive to changes in grain size, changes in chemistry or mineralogy, changes in the saturation of materials, and changes in rock type. DC resistivity and IP data provide high quality, high resolution 2D imaging of subsurface layers in areas where there is a contrast in electrical resistivity and/or chargeability across an interface, such as the contrasts between dry coarse grained glacial moraine, saturated moraine, landfill materials, and metamorphic argillite rock. It is well documented that the electrical resistivity method is sensitive to changes in grain size, where coarse grained materials such as gravel and cobbles are typically higher resistivity than fine grained materials such as clay and silt. In turn, the IP method is known to be sensitive to the water table, clay and other fine grained materials, and changes in chemistry associated with landfill materials. Clays tend to have higher chargeability than sands, gravels or hard metamorphic or igneous rock; this is because clays tend to have more free ions available. By contrast, there is generally a drop in chargeability at the groundwater table. This is a phenomenon that appears to be associated with a decrease in membrane polarization.

Taken together, 2D resistivity and IP provide very powerful indicators of the nature of subsurface materials and their saturation along an established transect, and also allow discrimination between possible types of lithology giving rise to an observed geophysical response- for example, discrimination between high resistivity argillite rock and hard clay with gravel/boulders as possible sources of a high resistivity layer in the data. As such, these methods are effective for the lateral and vertical boundaries of landfill material over native material and hard rock. Therefore, both electrical resistivity and IP data were collected at the Site: electrical resistivity was used to identify the changes in lithology, and once these locations were identified with resistivity, IP was used to screen for the presence of water,clay, landfill materials, and argillite rock in these features.

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The electrical resistivity and IP methods had their beginnings in the mining industry, but are now commonly used in the environmental and engineering businesses. In the electrical resistivity/IP methods a DC circuit is established in the ground via cables and electrodes, and the ground acts as the resistor to complete the circuit. There are several different arrays that can be used to collect the data; however, the most common are Wenner, Schlumberger and dipole-dipole. Electrical resistivity/IP data are typically displayed in 2D sections or profiles where they supply lateral and vertical electrical resistivity/ chargeability information about materials directly below a given established transect (much like a road cut).

4.1.1 Electrical Resistivity/IP Measurement

The electrical resistivity of a material is a measure of the ease with which an electrical current can flow through that material; whereas the IP chargeability of a material is a measure of its ability to polarize, or hold charge, after current has been applied. During a SuperSting resistivity/IP survey a known amount of current is introduced into the ground through two electrodes (current electrodes). This current then travels through the ground and the electrical potential is measured by 2 other electrodes some distance from the current electrodes. Ohm's Law (V=IR) is then used to calculate the apparent resistivity of the ground through which the current has traveled, and time domain IP methods are used to calculate apparent chargeability. This is done by determining the change in voltage from the starting voltage (in mV/V or chargeability) at specific time gates after the current has been turned off during a specified integration time (2 seconds for this project).

The SuperSting is a system that allows automated acquisition of electrical resistivity and IP data. During a SuperSting survey, many apparent resistivity/apparent chargeability measurements are made for a suite of electrode pair separations, and these apparent resistivity/ chargeability values are plotted on two-dimensional diagrams (location of measurement vs. depth). The result is two 2D subsurface images (one for resistivity and one for IP chargeability) that contain both sounding and profiling data. The automated resistivity/IP data acquisition provided by the SuperSting allows for a tremendous amount of data to be acquired relatively quickly at very high-resolution capability. Once the data have been acquired for a given transect, they can be downloaded to a field computer and subsequently viewed, color-contoured, and interpreted for features of interest.

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4.2 Utility Locators

Utility locators and shallow metal detectors were used to delineate metallic/conductive utilities in the immediate vicinity of the established resistivity/IP transects in order to distinguish anomalies caused by utilities from those caused by features of interest.

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Utility locators such as the Dynatel 500A (Dynatel) and Radiodetection 4000 (RD4000) are specifically designed to accurately locate and delineate metallic or conductive underground pipes and utilities. These locators are designed to detect the magnetic field resulting from an electric current flow on a line. During the use of a locator, a transmitter emits a radio-frequency source signal that induces a secondary electromagnetic field in nearby utilities. A receiver unit measures the signal strength of this secondary magnetic field and emits an audible response to allow the precise location and tracing of the pipe, cable, or other conductor in which the signal is induced. If the utility is accessible, the source signal can be directly connected to it, which makes the secondary field much larger and more readily measurable. Where no direct connection is possible, the Dynatel and RD 4000 can be used to inductively trace the pipe or cable. Utility locators are effective for the location of long, linear metallic objects.

The Fisher M-Scope (M-Scope) was used to augment the investigation of metallic utilities and to locate shallow buried metallic features (such as buried manholes) at the Site. The M-Scope has a transmitter and a receiver at the ends of a short boom. The transmitter emits a radio-frequency source signal that induces a secondary magnetic field in metallic material in its immediate vicinity. The receiver measures the signal strength of this secondary magnetic field and emits an audible response, the volume and pitch of which increase in the presence of metallic material. The sensitivity of the M-Scope allows the precise identification of the lateral boundaries of a metallic object.

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5.0 FIELD PROCEDURES

5.1 Site Preparation

Lines 1 through 6 were designated by Roux Associates and established by the geophysics crew using a survey chain and surveyor's chalk; these transect locations are indicated in Figure 1.

Line 1 was 540 ground meters (1771.6 ground feet) in length and ran southwest-northeast in the southwestern portion of the Site; the northeast end of Line 1 terminated at the Northwest Percolation Pond. Line 2 was 460 ground meters (1509 ground feet) in length and ran southwest-northeast in the open area just west of the Main Plant. Line 3 was 550 ground meters (1804.5 ground feet) in length and ran southwest-northeast in the northeast portion of the Site; this line originated at the eastern edge of the Northeast Percolation Pond, came across the East Landfill and terminated at the northeast Site boundary. Line 4 was 550 ground meters (1804.5 ground feet) in length and ran southeast-northwest in the northeast portion of the Site; this line originated east of the Northeast Percolation Pond and came across the Wet Scrubber Sludge Pond and the West Landfill. Line 5 was 500 ground meters (1640.4 ground feet) in length and ran southwest-northeast in the northeast portion of the Site; this line came across the Wet Scrubber Sludge Pond and the Center Landfill, and terminated at the Cedar Creek Reservoir Overflow. Line 6 was 450 ground meters (1476.4

ground feet) in length and ran southwest-northeast in the northeast portion of the Site; this line came across the West Landfill and the Sanitary Landfill. Once the transects were properly established, stations along each transect were marked with surveyor's chalk at 10 meter intervals.

5.2 Resistivity and IP Procedures

Once the transects were marked on the ground, steel stakes were established at each electrode station along each transect and, where necessary, salt water was added to the soil to improve the electrical contact between the soil and the electrode. Once the stakes were established, the resistivity cable with passive electrodes was attached to each stake with a rubber band to form the electrical circuit. Prior to data acquisition, all recommended manufacturer system tests were conducted, and relay and contact resistance tests were conducted on the electrodes to ensure electrical communication and that enough current was traveling through the ground to obtain accurate results. Contact resistances were reduced to as low as possible before any measurements were taken. Once the initial tests were performed, Schlumberger and dipole-dipole arrays of resistivity and IP data were collected along all established transects. Two readings were taken for every measurement in order to test for repeatability in the readings.

Once the data were acquired for a given transect, they were downloaded to a field computer, reviewed for quality and saved in a raw data file. Elevations were surveyed at each electrode station along each transect by the Spectrum crew; these elevations were then calculated relative to Station 0 on each line (where this station was assigned a relative elevation of 0). Subsequently, a site topography map was provided by Roux Associates, so that relative elevations could be converted to absolute MSL elevations. A detailed sketch map of known site features that could affect the measured resistivity and IP data along each transect was made by the Spectrum crew.

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6.0 DATA PROCESSING

6.1 Resistivity and IP Data Processing

The data file saved for each transect was entered into the software program EarthImager® (Advanced Geosciences, Inc., 2010). This program reads the data file, which contains information such as electrode spacing, length of transect, number of repeat measurements per electrode, and type of resistivity array. Once the data are read into EarthImager® they are reviewed for indication of erroneous or noisy data using a color graphic display. Once appropriate editing has been carried out, topography information is read into the program and the data are then sorted into finite element blocks where each block is assigned an initial resistivity value. A forward modeling algorithm that uses a non-linear least squares optimization technique is used to first calculate apparent resistivity values that would be measured with the given array type for the starting model. The calculated apparent resistivity values are then compared with the measured apparent resistivity values, and the

difference between the two used to adjust the model block values to produce a model that has a lower root-mean-square (RMS) error fit to the measured section. The program advances through a series of iterations until an acceptable error level is reached (usually 10% or less) for the resistivity, at which point a linear inversion of the IP data is carried out.

For each transect, the final product of the processing is two color-contoured model sections: one for resistivity and one for IP, where the final fitting error between the ***calculated*** pseudosection generated from the final model section and the ***actual*** measured pseudosection is represented as the RMS (root mean square) in percent. It should be noted that the resolution of the resisitivity/IP method decreases with increasing depth. Therefore, the finite element mesh becomes coarser with depth, providing lower resolution and a more generalized model. This tends to produce broadening and flattening along the lower boundary. The ultimate effect of this is that the data with the highest resolution and most accurate depths are found in the upper third of the model section, where the lateral resolution is approximately one-half the unit electrode separation. In terms of the data collected for this project, one-half the electrode spacing corresponds to 5 meters lateral resolution. Because two different arrays of resistivity/IP data were collected at each location and then merged together during processing, the loss in resolution was minimized during this project. where the middle of each model section can be regarded as fairly high resolution as well, due to the redundancy in measurement. The greatest limitation is in the data located in the bottom third of the model section (corresponding to the greatest detection depth), where both lateral and vertical resolution are lower than the upper two-thirds of the section.

In terms of interpretation for the lateral and vertical boundaries of the landfills encountered during this project, this means that the interpreted lateral and vertical boundaries of landfills were made from the area in the sections with the highest resolution and the greatest density of data. Despite this, it should be mentioned that horizontal boundaries between layers with sharp resistivity contrasts, such as those that might be expected between landfill materials and underlying natural materials, will be somewhat smeared in the resistivity model section because of the smoothing algorithm used to generate the final image. Therefore, the horizontal contact separating layers of different resistivity as indicated in the model section would not be expected to be an exact measurement of the base of landfill materials; rather a smoothed image of that boundary. Because of this limitation it is useful to correlate the final model section with actual drilling results for highest accuracy in interpretation.

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7.0 RESULTS AND INTERPRETATION

A Geophysical Survey Location Map is presented in Figure 1. Electrical resistivity and IP profiles of the final model sections for Lines 1 through 6 are presented in Figures 2 through 7, respectively. The following sections contain a discussion of the results.

In order to facilitate discussion of resistivity values and to compare and contrast between transects, a standard resistivity color scheme (ranging from 1.0 Ohm-meters to 100,000 Ohm-meters) was created and used for all of the model resistivity profiles generated for this project. This color scheme ran from darkest blue (lowest resistivity) to darkest purple (highest resistivity). A similar standard color scheme was created for the IP chargeability values, where lowest chargeability values (-1000 to -250 milliseconds) are darkest blue and high chargeability values (200 to 650 milliseconds) ran from dark red (200 mS) to dark brown (650 mS). These standard resistivity and IP chargeability color schemes were used for the profiles in Figures 2 through 7.

It is well known that the electrical resistivity method is sensitive to changes in lithology, where in a general sense fine grained materials are lower resistivity and coarse grained materials are higher resistivity. However, site-specific lithologic interpretation of resistivity can be made much more precise with ground truth from borings or wells that lie in the vicinity of the data. For this project, resistivity interpretation was made from review of driller's logs for the previously existing wells as well as the Roux borings that had been completed at the time of the report, from on-site geologic and lithologic observations, photos, and general experience at similar sites. Based on this correlation and experience in similar environments, lithologic relationships to resistivity values obtained during this investigation were derived; a summary of these interpretations is provided in Table I.

The most important resistivity/IP correlation resulting from comparisons with Roux drilling results is that, while it was anticipated that the metamorphic bedrock would be hard and highly resistive (2500 Ohm-meters or higher), this bedrock in fact ranges in resistivity between 200 and 5,000 Ohm-meters, depending on whether it is weathered/fissile or competent (core rock). In addition, while the IP signature of bedrock was expected to be low (deep blue colors) it in fact ranges between moderate values (20 to 100 milliseconds – pink colors) to low values (blue colors). These factors make the signature of bedrock more difficult to identify because other non-bedrock materials also have this range of resistivity/IP values associated with them.

Perhaps most importantly, the highest resistivity material (up to 100,000 Ohm-meters – darkest purple) encountered during this investigation does not correspond to bedrock at all but to stiff, dry glacial till, where in several locations the extremely high resistivity till is associated with very low IP values (deep blue colors).

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For the purposes of this report the assumption made for the interpretation of natural materials was that increases in resistivity correspond to either an increase in material grain size or material stiffness, dryness or hardness. In the case of changes in grain size lower resistivity values correspond to finer grained materials such as clays and silts, and higher resistivity values correspond to coarser grained materials such as gravels, cobbles and boulders. In the case of material stiffness or hardness, lower resistivity material would correspond to softer unconsolidated material, where high resistivity material would correspond to consolidated or lithified, stiff and dry material. The possibility of a decrease in resistivity representing an increase in material saturation was taken into account at depths considered to be favorable to the presence of groundwater (generally 50 feet or greater below ground surface). In addition, low resistivity values in the landfill area were considered to be associated with landfill materials, particularly where elevated IP existed in the presence of low resistivity values.

It is important to mention that the lithologic interpretation of resistivity values is ***highly site specific*** and depends on several factors, including depositional environment, geologic environment (i.e. sedimentary vs igneous vs metamorphic rocks), structural features such as faults, folds and fractures, mineralogical features such as the presence of crystals, salts, or other byproducts of the smelting process, degree of water saturation of materials, and natural groundwater resistivity in the study area. Therefore, interpretations that apply very well to one specific location may be ***erroneous*** for another location. In particular, the interpretations and relationships presented in Table I that apply to natural and landfill materials ***apply specifically to this locality and geology*** and should be not be applied to other locations.

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In Figures 2 through 7 the upper profile contains the inverted resistivity distribution which best represents the actual lateral and vertical variation of earth resistivity beneath the ground surface along the designated transect. The lower profile contains the inverted IP chargeability distribution which best represents the actual lateral and vertical variation of earth chargeability beneath the ground surface along the designated transect. In these figures, the colors represent values which key to the color bar to the right side of the image. The numbers across the top of each model section represent ground distances along each transect in units of feet as measured from Station 0. The numbers along the vertical axis of each section are the elevations in MSL-feet, as determined from ties to bench marks provided by Roux Associates. The dashed blue line indicates the top of the saturated zone, as interpreted from comparing boring/well ties with the resistivity and IP data. The dashed black line indicates the interpreted base of landfill waste materials in areas where the depth of landfill was unknown. The queried dashed black line indicates the expected depth of landfill waste materials based on information provided by Roux Associates, and the white dashed line indicates the top of argillite bedrock where it can be confidently interpreted. The interpretations of these lines are discussed below.

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7.1 Line 1

Water Table

The interpreted water table along Line 1 is identified with a dashed blue line in Figure 2. There were 3 well ties to Line 1, which were used to correlate lithology and measured water table with the resistivity and IP signatures. Based on the resistivity signature (ranging between 150 and about 600 Ohm-meters) between 0 and about 60 feet below ground surface in the southwestern portion of Line 1, the materials are interpreted as dry and coarse grained sands and gravels. The water table at the southwest end of Line 1 (up to about Station 450) is interpreted as ranging from 75 to 84 feet bgs (3032 to 3020 MSL) based on a drop in resistivity at this elevation, a tie to well TW11/CFMW-056, and a corresponding decrease (green colors) in the IP chargeability at this elevation. Based on the resistivity signature below about 84 feet bgs on Line 1, it appears that the materials below this elevation consist of saturated sand and gravel. The vertical drop in resistivity and chargeability can be observed across the section to the northeast and is interpreted as representing the groundwater table. Based on this correlation, the water table appears to shallow to the northeast, where it appears to be shallowest (20 feet bgs) at the northeast end of Line 1.

Bedrock

Based on a comparison with drilling results and resistivity/IP vaules and character, bedrock does not appear to be present within the depth of detection along Line 1 (within 440 feet of the ground surface).

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7.2 Line 2

Water Table

The interpreted water table along Line 2 is identified with a dashed blue line in Figure 3. Based on the high resistivity signature (ranging between 1000 and about 2500 Ohm-meters) between 0 and about 50 feet below ground surface along Line 1, the materials are interpreted as dry and coarse grained sands and gravels. The water table is interpreted at about 53 to 60 feet bgs (3055 to 3048 MSL) between Stations 0 and at least 750. This interpretation is based on a drop in resistivity at this elevation, a corresponding decrease in the IP chargeability at this elevation, and the known water depths at wells W8/CFMW-044 and TW1/CFMW-044b. Based on the resistivity signature below about 60 feet bgs at this portion of Line 2, it appears that the materials consist of saturated sand and gravel/large gravel.

Between Stations 800 and 1450 the water table appears to rise in elevation to between 30 and 40 feet bgs, based on an observed decrease in IP chargeability between 30 and 40 feet bgs (3065 to 3074 MSL).

Bedrock

Based on a comparison with drilling results and resistivity/IP vaules and character, bedrock does not appear to be present within the depth of detection along Line 2 (within 335 feet of the ground surface).

7.3 Line 3

Water Table

The interpreted water table along Line 3 is identified with a dashed blue line in Figure 4. The water table on Line 3 was interpreted based on the tie to Line 4 and a vertical decrease in resistivity and IP chargeability at the anticipated elevation of groundwater. Based on these factors, the water table is interpreted at about 60 to 70 feet bgs (3067 to 3073 MSL) between Stations 0 and 900. Northeast of Station 900 groundwater appears to rise gradually to elevation 3090 at Station 1450, based on a decrease in resistivity and chargeability, as well as the tie to TW10/CFMW-023.

Landfill Material

Line 3 intersected the expected lateral boundaries of the East Landfill between about Station 1525 and at least Station 1775. The expected base of the East Landfill waste material along Line 3 was 30 to 40 feet; the dashed, queried black line in Figure 4 between Stations 1525 and 1775 represents a 40-foot depth of waste material. The resistivity of the material above this line ranges from moderate to high values, which alone do not seem to stand out against background materials; however, the elevated IP values in this area are consistent with the presence of waste material to at least a depth of 40 feet below the top of the landfill.

Bedrock

Bedrock was encountered by Roux Associates at a depth of 148 feet below ground surface in Well CFMW-23a (Station 1489 on Line 3). Based on this result, the resistivity and IP values were compared at the bedrock contact where CFMW-23a projects to Line 3. At the projected location the resistivity values are moderately high only and the IP values are moderate as well. This could be a result of projecting well data from a distance of 250 feet southeast of the line, where the resistivity values might suggest more highly weathered rock this precise location; although the resistivity values at this same elevation increase northeast of about Station 1575, indicating possibly more competent rock northeast of Station 1575. Because the IP values exhibit a sharp increase at the projected bedrock contact, the IP data were used to interpret top of bedrock along Line 3. Based on this, the bedrock contact was

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interpreted to exist between Stations 1320 and at least 1640 ranging between 200 feet and 148 feet below ground surface. This bedrock contact is indicated with a dashed white line In Figure 4.

7.4 Line 4

Water Table

The interpreted water table along Line 4 is identified with a dashed blue line in Figure 5. The water table southeast of the Wet Scrubber Sludge Pond on Line 4 was interpreted using the ties to wells W5-TW-15/CFMW-019 and W6-TW-18/CFMW-021, and by comparing the resistivity and IP signatures at the depths of known water. Based on this, the resistivity data indicate a sharp change from high resistivity to lower resistivity, while the corresponding IP data exhibit a drop in chargeability, at about elevation 3067 (68 feet below ground surface). The high resistivity material above this level is interpreted as dry coarse grained sand and gravel, whereas the material below this level is interpreted as saturated sand and gravel. As the low IP (green) horizon continues to the southeast, the water table is inferred to follow this line. A similar low IP (green) horizon occurs below the West Landfill Area at about elevation 3080; this level may be associated with groundwater, as groundwater approximately 400 feet to the southwest of Line 4 (well TW-3/CFMW-007) is at elevation 3086.

Landfill Material

The interpreted base of landfill materials along Line 4 in the Wet Scrubber Sludge Pond Area is identified with a dashed black line in Figure 5. This landfill material was interpreted based on the presence of near surface low resistivity material, and general lateral heterogeneity in the resistivity signature. Based on this, the apparent landfill thickness in the Wet Scrubber Sludge Pond Area ranges from about 15 feet (Station 585) to 38 feet (Station 735). As noted in Section 3.0 of this report the RI/FS Work Plan indicated an estimated depth of 65 ft for the West Landfill. This depth is represented by a dashed and queried black line between Stations 1000 and about Station 1560 on Line 4. An area of low resisistivity (3 to 10 Ohm-meters – blue colors) is identified at this depth between Stations 1267 and 1463, and appears to extend deeper. This suggests that the landfill may extend deeper, perhaps to a depth of 115 ft as indicated by the deep blue low resistivity layer. Alternatively, the deep blue low resistivity layer could represent an area of impacted soil or groundwater underlying the landfill.

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Bedrock

There were no wells or borings in the vicinity of Line 4 that indicated bedrock. The tie location to Line 5 was used as a point of comparison to determine if similar material existed on Line 4 as that on Line 5 at the tie point. While at first the extremely high resistivity material (dark purple) along Line 4 beginning at about Station 550 at about 100 feet below ground surface (3060 MSL) was thought to represent hard bedrock, this material is now interpreted to be stiff, dry glacial till based on Roux drilling ties to high resistivity on Lines 5 and 6. Because this high to extremely high resistivity extends to depth and to the northwest on Line 4, and because it has areas of extremely low IP which appears to be associated with the stiff, dry glacial till encountered during Roux drilling, bedrock does not appear to be present within the depth of investigation (400 feet below ground surface or above elevation 2800) on Line 4.

7.5 Line 5

Water Table

The interpreted water table along Line 5 is identified with a dashed blue line in Figure 6. The water table southwest of and beneath the Wet Scrubber Sludge Pond on Line 5 was interpreted using the tie to well W5-TW-15/CFMW-019, and by comparing the resistivity and IP signatures at the depths of known water. Based on this, the resistivity data indicate a sharp change from high resistivity to lower resistivity between about Stations 125 and 350, while the IP data exhibit a drop in chargeability between Stations 0 and about 800, between elevations 3060 and 3070. Therefore, the water table; the water table is inferrred to follow this line beneath the Wet Scrubber Sludge Pond to at least Station 800. The water table at the northeast end of Line 5 was interpreted using ties to wells TW8/CFMW-020 and TW14/CFMW-017. While the resistivity values do not appear to decrease at the elevation of groundwater for these wells, there is a drop in IP at the level of groundwater; therefore, an interpreted groundwater horizon has been made between about Stations 1100 and 1550 at about elevation 3100 to 3105. As neither the resistivity nor the IP values exhibit a decrease at the expected elevation of groundwater between Stations 850 and 1100, no interpretation of the water table can be made in this station range.

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Landfill Material

The interpreted base of landfill material along Line 5 in the Wet Scrubber Sludge Pond Area is identified with a dashed black line in Figure 6. This landfill material was interpreted based on the presence of near surface low resistivity material, and general lateral heterogeneity in the resistivity signature.

Based on this, the apparent thickest portion of landfill material in the Wet Scrubber Sludge Pond Area occurs between Stations 540 and 673. In this area the landfill ranges in thickness from 15 to 43 feet, where it is thickest at Station 600. Between Stations 735 and 1200 the depth of the landfill material ranges between 15 and 30 feet. As noted in Section 3.0, the

RI/FS Work Plan indicated an estimated depth of 15 to 20 ft for the Center Landfill. An assumed landfill depth of 20 feet is represented by the dashed and queried black line between Stations 1355 and about Station 1540 on Line 5. An area of low resisistivity (7 to 8 Ohm-meters – blue colors) is identified at this depth between Stations 1402 and at least 1464, and appears to extend deeper. This suggests that the landfill may extend deeper, perhaps to a depth of 50 ft as indicated by the lower resistivity (green) layer. Alternatively, the green lower resistivity layer could represent an area of impacted soil or groundwater underlying the Center Landfill.

Bedrock

None of the wells that tied to Line 5 definitively identified bedrock; although "red brick-like shale" was noted in the driller's log for TW8/CFMW-020 at about elevation 3019. At this depth the resistivity values are moderately high (1000 Ohm-meters) and the IP values are low (green) as might be expected with a hard rock contact. Although a sharp drop in IP is not observed right at the shale contact, it should be noted that the drilling information at Station 1273 is projected from 200 feet to the southeast of Line 5, and so some variability might be expected. Based on this "shale" contact, and based on the expectation that bedrock should exist at an elevation of about 3056 at the northeast end of Line 5 based on the contacts indicated in Roux wells CFMW-023 to the southeast and CFMW-008 to the northwest, the top of bedrock was interpreted between Stations 1300 and at least 1460 between the elevations of 2940 and about 3000. The top of bedrock contact is indicated with a dashed white line in Figure 6.

Because no bedrock was encountered in Roux well CFMW-016a, and because a vertical column of extremely high resistivity values occur between Stations 900 and 1200 (which is believed to be associated with stiff, dry glacial till), bedrock is not believed to exist within the depths of detection southwest of Station 1300 on Line 5.

7.6 Line 6

Water Table

The interpreted water table along Line 6 is identified with a dashed blue line in Figure 7.
The water table southwest of the West Landfill and up to Station 315 on Line 6 was interpreted using the tie to well TW3/CFMW-007, and by comparing the resistivity and IP signatures at the depth of known water. Based on this, the resistivity data indicate a sharp change from high resistivity to lower resistivity between about Stations 100 and 200, while the IP data exhibit a vertical change in chargeability (in some cases an increase and in some cases a decrease) between Stations 50 and about 315, at elevation 3084. Therefore, the water table is inferrred to follow elevation 3084 between Stations 50 and 315. The water table northeast of the West Landfill was interpreted using the tie to well TW9/CFMW-008. The resistivity values exhibit a sharp change from high resistivity to low resistivity between Stations 980 and 1040 at elevation 3100. In addition, there is a general vertical drop in IP at

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the level of water (elevation 3100) during drilling of CFMW-008 ; therefore, an interpreted groundwater surface has been made between about Stations 950 and 1400 between elevations 3100 and 3154.

Landfill Material

Line 6 crosses both the West Landfill and the Sanitary Landfill. As noted in Section 3.0 of this report the RI/FS Work Plan indicated an estimated depth of 65 ft for the West Landfill. This depth is represented by a dashed and queried black line between Stations 280 and about Station 927 on Line 6. An area of low resisistivity (3 to 10 Ohm-meters – blue colors) is identified at this depth between Stations 365 and 609, and appears to extend to greater depths, especially between Stations 365 and 500. This suggests that the landfill may extend deeper, perhaps to a depth of 106 ft as indicated by the deep blue low resistivity layer. Alternatively, the deep blue low resistivity layer could represent an area of impacted soil or groundwater underlying the West Landfill.

The depth of waste materials at the Sanitary Landfill was unknown. The interpreted base of waste materials in the Sanitary Landfill along Line 6 is identified with a dashed black line in Figure 7 between Stations 1100 and 1300. This landfill material was interpreted based on the presence of lower resistivity near surface material and general lateral heterogeneity in the resistivity signature. Based on these factors the depth of waste material in the Sanitary Landfill ranges between 18 feet and 55 feet, where it is thickest at Station 1200.

Bedrock

Bedrock was encountered by Roux Associates at a depth of 150 feet below ground surface in Well CFMW-008 (Station 1088 on Line 6). Based on this result, the resistivity and IP values were compared at the bedrock contact where CFMW-008 projects to Line 6. At the projected location the resistivity values are moderately high only and the IP values are moderate as well. This could be a result of projecting well data from a distance of 260 feet southeast of the line, where the resitivity values might suggest more weathered rock at this precise location. Because the IP values exhibit a sharp increase at the projected bedrock contact, the IP data were used to interpret top of bedrock along Line 6. Based on this, the bedrock contact was interpreted to exist between Stations 975 and at least 1338 between elevations 2988 and 3073. This interpreted bedrock contact is indicated with a dashed white line in Figure 7.

An extremely high resistivity/ very low IP (deep blue) feature can be found between Stations 394 and about 828 between elevations 2980 and 3056. This feature is believed to be associated with stiff, dry glacial till based on correlations with Roux drilling information and the tie to Line 4. Based on this feature and the character of the resistivity/IP data southwest of Station 950, bedrock is not believed to exist within the depths of detection southwest of Station 950 on Line 6.

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8.0 LIMITATIONS

This investigation was conducted in accordance with generally accepted methods and procedures followed in the industry. Although every effort was made to minimize sources of error in the data and results, each method has its limitations. In addition, the interpretation of the data, while made considering the site background information and the geologic and hydrogeologic maps for the area, was based on assumptions which may not be exactly correct. These factors are discussed below.

The location of features as depicted in Figure 1 may not be exactly correct. This is because features were measured and mapped during the investigation according to ***ground distance;*** whereas features depicted in Figure 1 were measured in ***horizontal distance*** from a satellite image. As a result, the mapped location of lateral boundaries may be in error by a few feet compared with the actual distance traversed in ground units.

8.1 Resistivity/IP Method

The lateral resolution, and accuracy, for resistivity/IP surveys is determined by data quality and electrode spacing. During this investigation the quality of the data was in general very good; however, there were some "noisy" areas where interference from the presence of utilities was observed; in particular the overhead power lines at the northeast end of the Site caused some electrical interference in the data. Because both Schlumberger and dipole-dipole data were combined in the final interpretation, it can be stated that the shortcomings of noise from utilities were effectively minimized.

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9.0 REFERENCES

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TABLE I: Interpretation of Resistivity for Lithology/Material Type
Columbia Falls, Montana

Resistivity			Interpretation
Range	Color	Category	
1 to 7 ohm-meters	darkest blue to dark blue	low resistivity	landfill materials to clays: 1 Ohm-meter is highly conductive and may indicate changes in chemistry, values approaching 7 could be associated with clay
7 to 27 Ohm-meters	dark blue to light blue	low to moderately low resistivity	clay to clay with silt, sand or gravel, where values approaching 27 Ohm-meters have greater amounts of coarse grained material; alternatively these values could be associated with landfill materials
27 to 68 Ohm-meters	light green to yellow	moderately low resistivity	silt with sand to sand with silt and fine gravel, where values approaching 68 Ohm-meters have greater amounts of coarse sand and gravel; alternatively these values could be associated with landfill materials
68 to 200 Ohm-meters	orange-tan to grey to yellow-green	moderately low to mid-range resistivity	silt and gravel to coarse gravel to gravel with cobbles, where values approaching 200 Ohm-meters have greater amounts of cobbles
200 to 5,000 Ohm-meters	yellow green to tan to light pink	moderately high to high resistivity	coarse sands and gravels with cobbles or boulders; alternatively these values may be associated with weathered to hard argillite rock
5,000 to 100,000 Ohm-meters	pink to red to light purple to darkest purple	high to extremely high resistivity	Very coarse grained sands, cobbles and boulders to stiff, dry glacial till, where values over 70,000 are likely associated with stiff, dry glacial till

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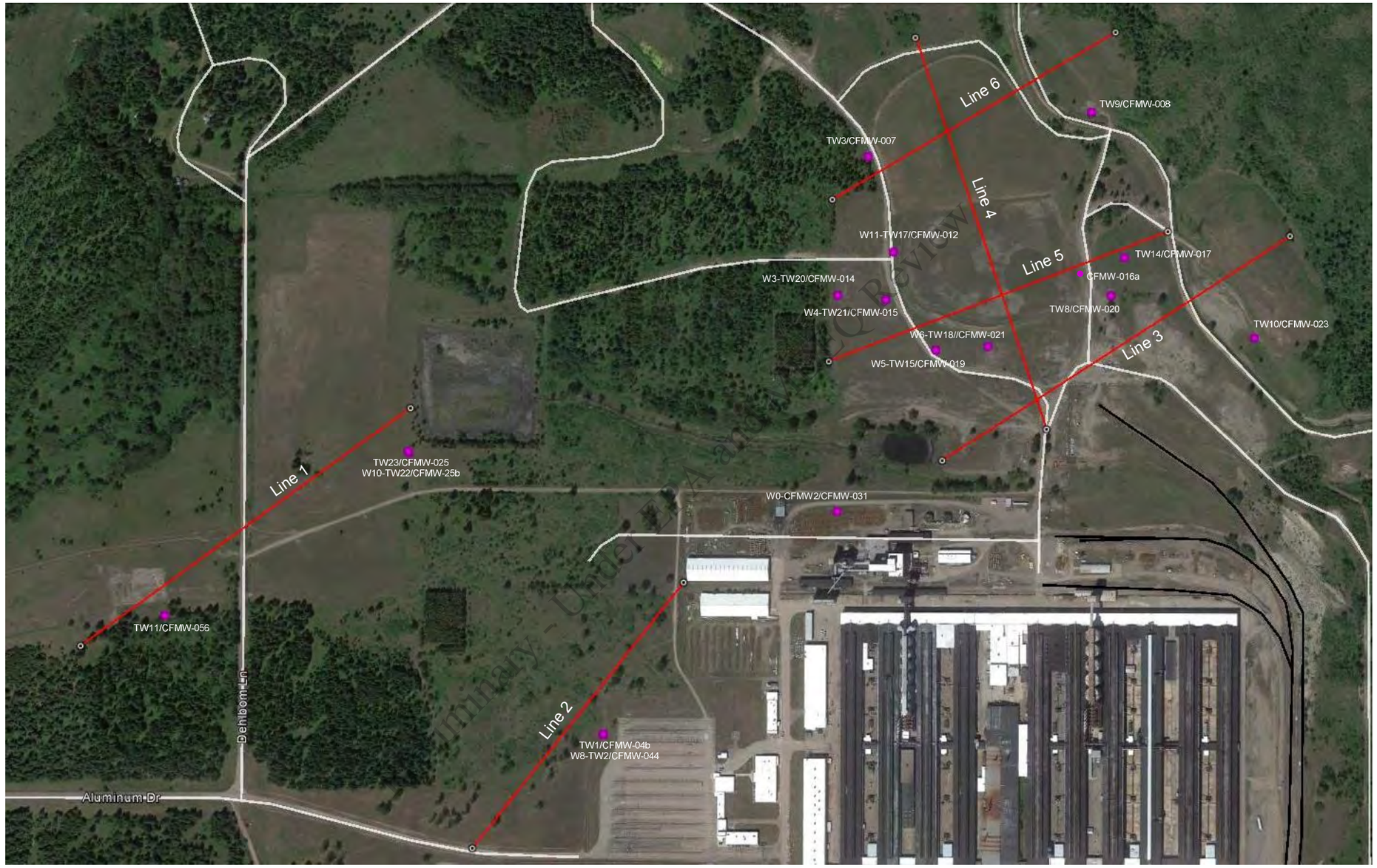
***NOTE: This table is provided as a brief discussion of results found. For a more detailed interpretation of data, please refer to Section 7.0 of the report



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Legend

- Existing well location
- Resistivity Transect

Scale is approximate (feet)

0 250 500

N W E S NORTH

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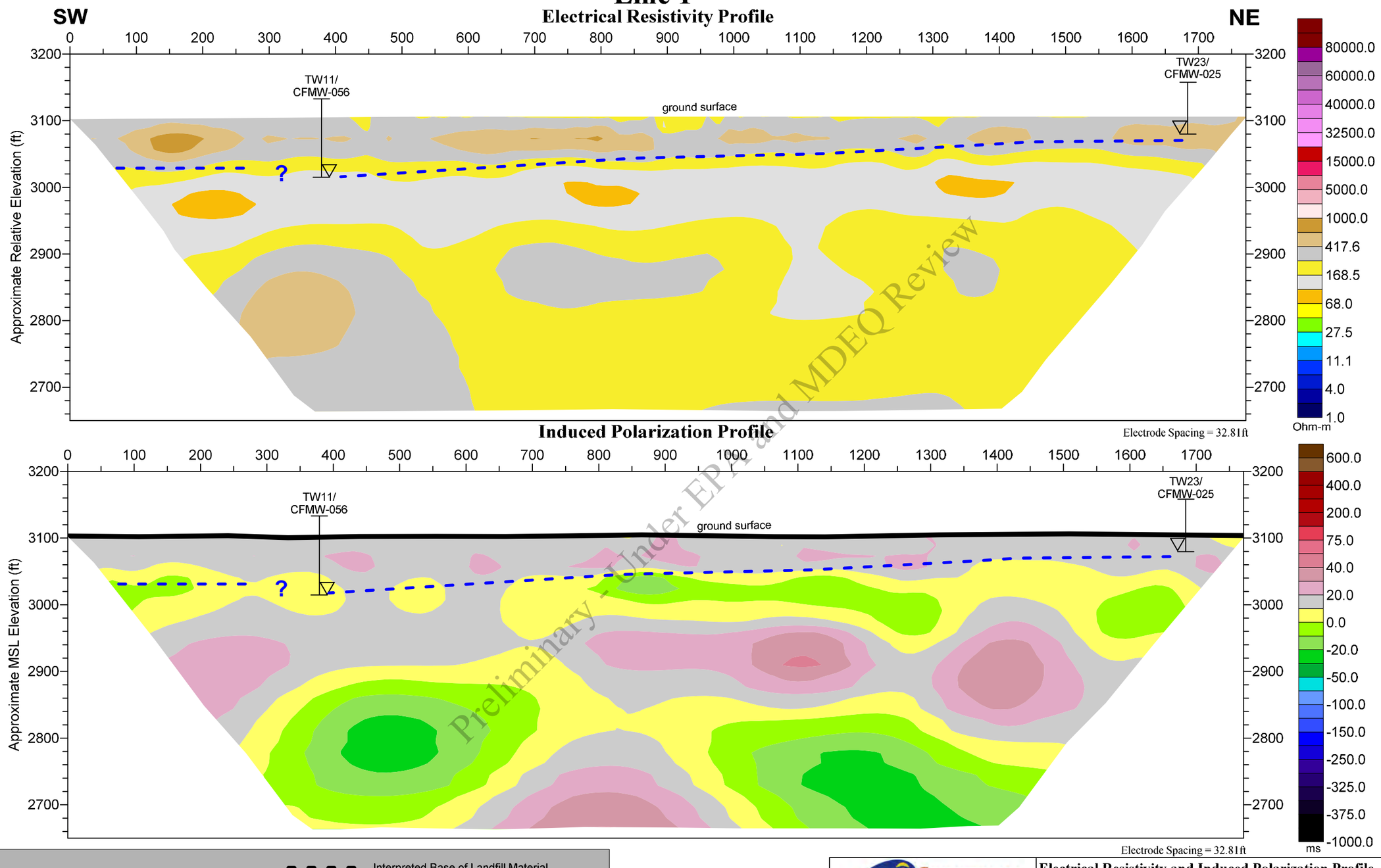
Geophysical Survey Location Map

PROJECT	Geophysical Investigation 2000 Aluminum Drive Columbia Falls, Montana		FIGURE NUMBER 1
PREPARED FOR	Roux Associates Islandia, New York		PROJECT NUMBER 1604181L
SCALE 1 inch = approximately 500 ft	FIGURE BY BAU	REVIEWED BY LCD	DATE 7/20/16

Line 1



Preliminary - Under EPA and MDEQ Review

Legend

- Water Table
- TD — Total depth of boring
- BD — Depth to Bedrock from drilling results
- Interpreted Base of Landfill Material
- Interpreted elevation of groundwater, queried where uncertain
- ? — ? Expected base of landfill material
- Interpreted Top of Bedrock

scale in feet: 0 75 150

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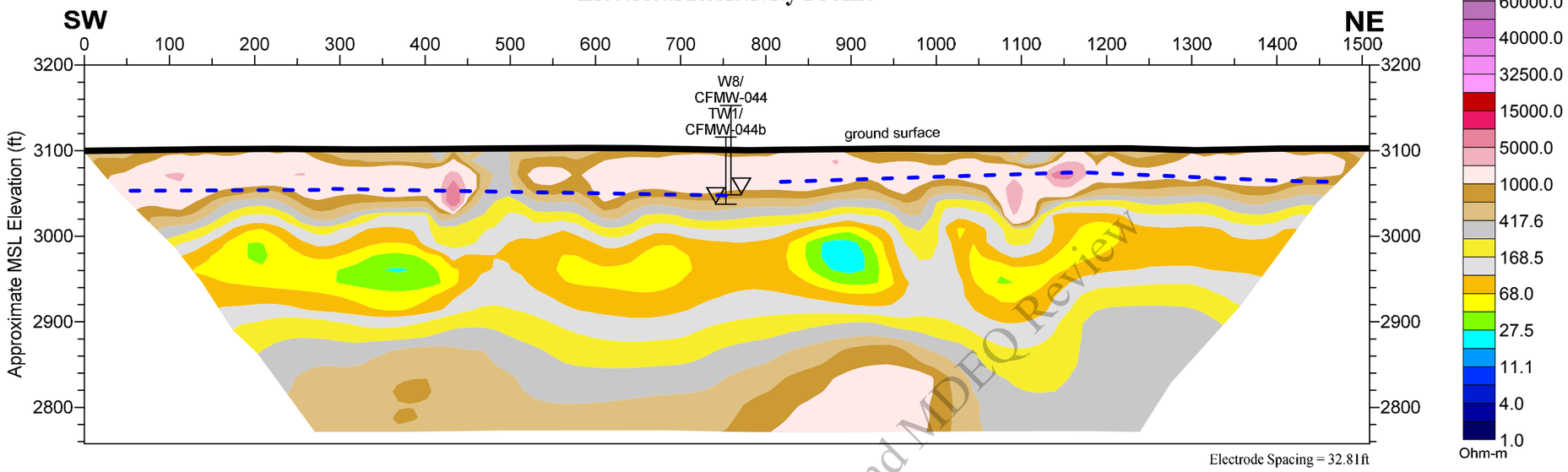
Costa Mesa, CA 92626
(714) 435-1073 www.spectrum-geophysics.com

Electrical Resistivity and Induced Polarization Profile - Line 1

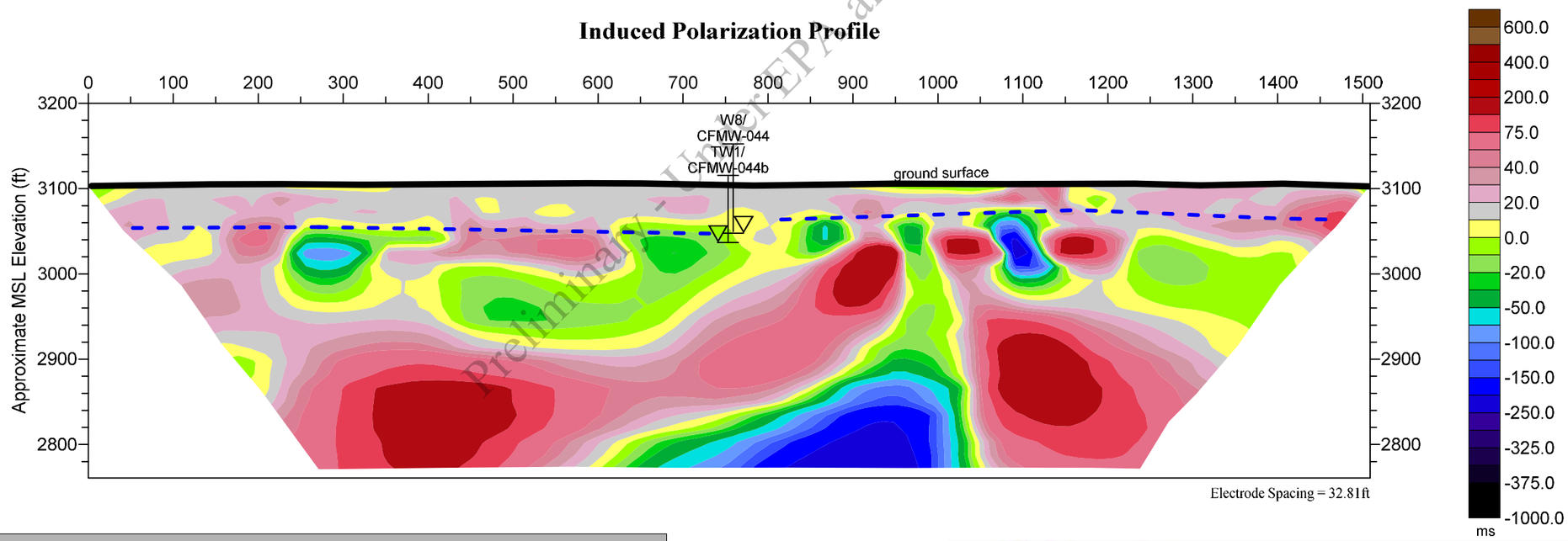
PROJECT	Geophysical Investigation 2000 Aluminum Drive Columbia Falls, Montana
PREPARED FOR	Roux Associates Islandia, New York
SCALE	1 inch = 150 feet
FIGURE BY	BAU
REVIEWED BY	LCD
DATE	7/20/16
FIGURE NUMBER	2
PROJECT NUMBER	1604181L

Line 2

Electrical Resistivity Profile



Induced Polarization Profile



Preliminary - Under EPA and MDEQ Review

Legend

- Water Table
- TD Total depth of boring
- BD Depth to Bedrock from drilling results
- Interpreted Base of Landfill Material
- Interpreted elevation of groundwater, queried where uncertain
- ? ? Expected base of landfill material
- Interpreted Top of Bedrock

scale in feet
0 75 150

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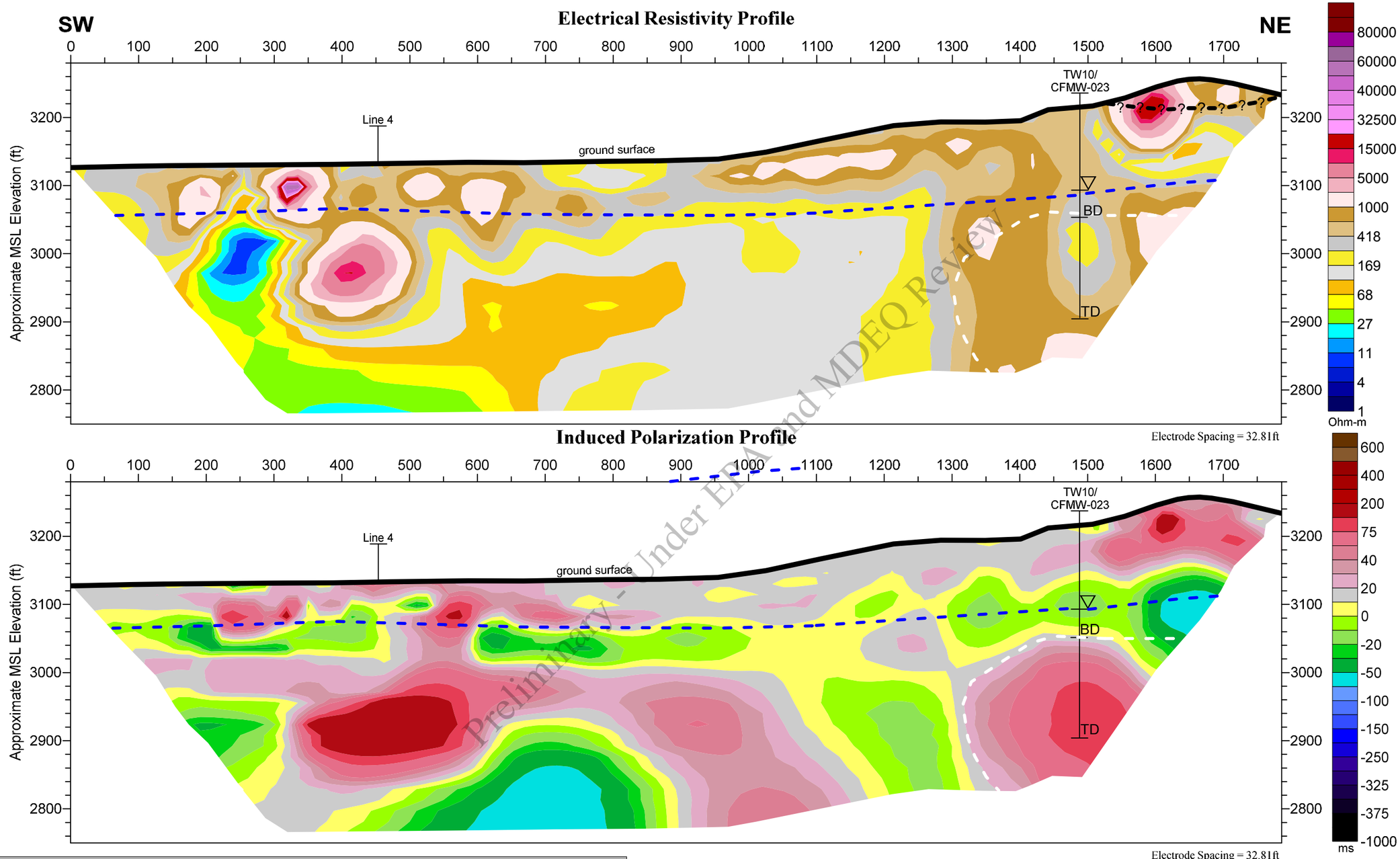
	Electrical Resistivity and Induced Polarization Profile - Line 2
PROJECT	Geophysical Investigation 2000 Aluminum Drive Columbia Falls, Montana
PREPARED FOR	Roux Associates Islandia, New York
SCALE	1 inch = 150 feet
FIGURE BY	BAU
REVIEWED BY	LCD
DATE	7/20/16
FIGURE NUMBER	3
PROJECT NUMBER	1604181L

Line 3



Preliminary - Under EPA and MDEQ Review

Legend

- Water Table
- TD — Total depth of boring
- BD — Depth to Bedrock from drilling results
- Interpreted Base of Landfill Material
- Interpreted elevation of groundwater, queried where uncertain
- ? — ? Expected base of landfill material
- Interpreted Top of Bedrock

scale in feet: 0 75 150

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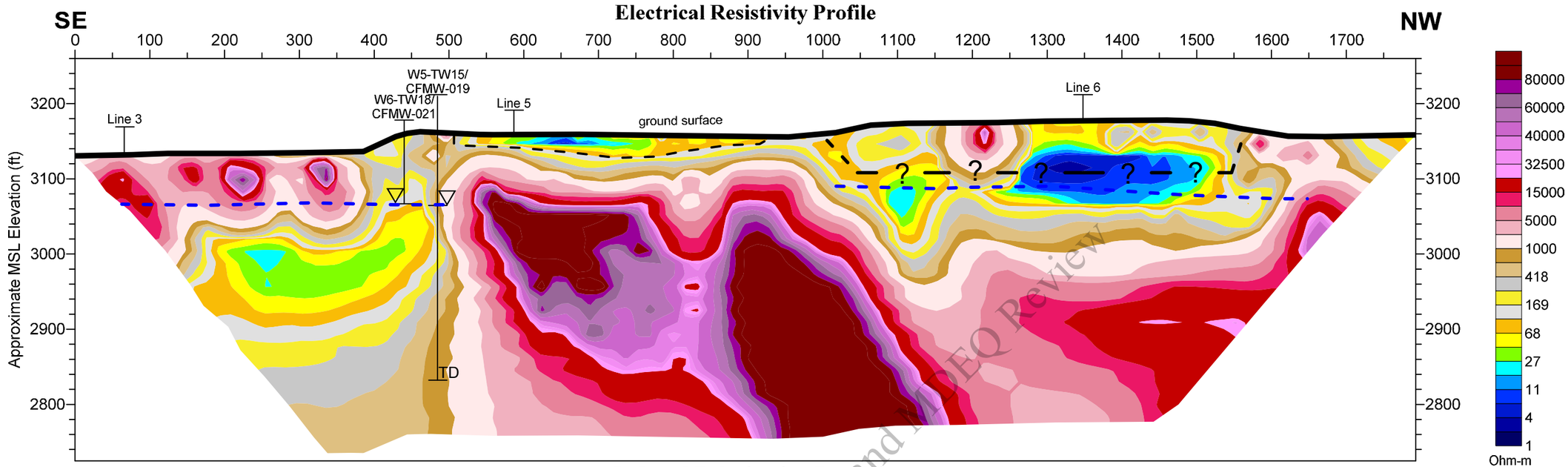
Electrical Resistivity and Induced Polarization Profile - Line 3

PROJECT	Geophysical Investigation, 2000 Aluminum Drive, Columbia Falls, Montana
PREPARED FOR	Roux Associates, Islandia, New York
SCALE	1 inch = 150 feet
FIGURE BY	BAU
REVIEWED BY	LCD
FIGURE NUMBER	4
PROJECT NUMBER	1604181L
DATE	7/20/16

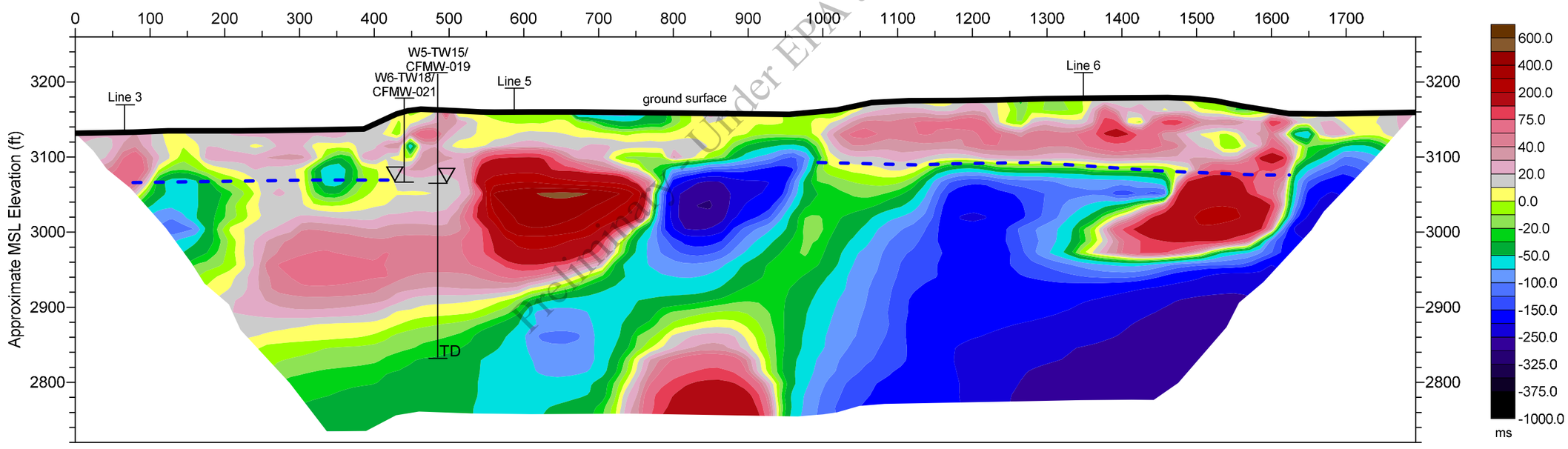
Line 4

Electrical Resistivity Profile



Electrode Spacing = 32.81ft

Induced Polarization Profile



Electrode Spacing = 32.81ft

Preliminary Under EPA and MDEQ Review

Legend

- Water Table
- TD — Total depth of boring
- BD — Depth to Bedrock from drilling results
- Interpreted Base of Landfill Material
- Interpreted elevation of groundwater, queried where uncertain
- Expected base of landfill material
- Interpreted Top of Bedrock

scale in feet: 0 75 150

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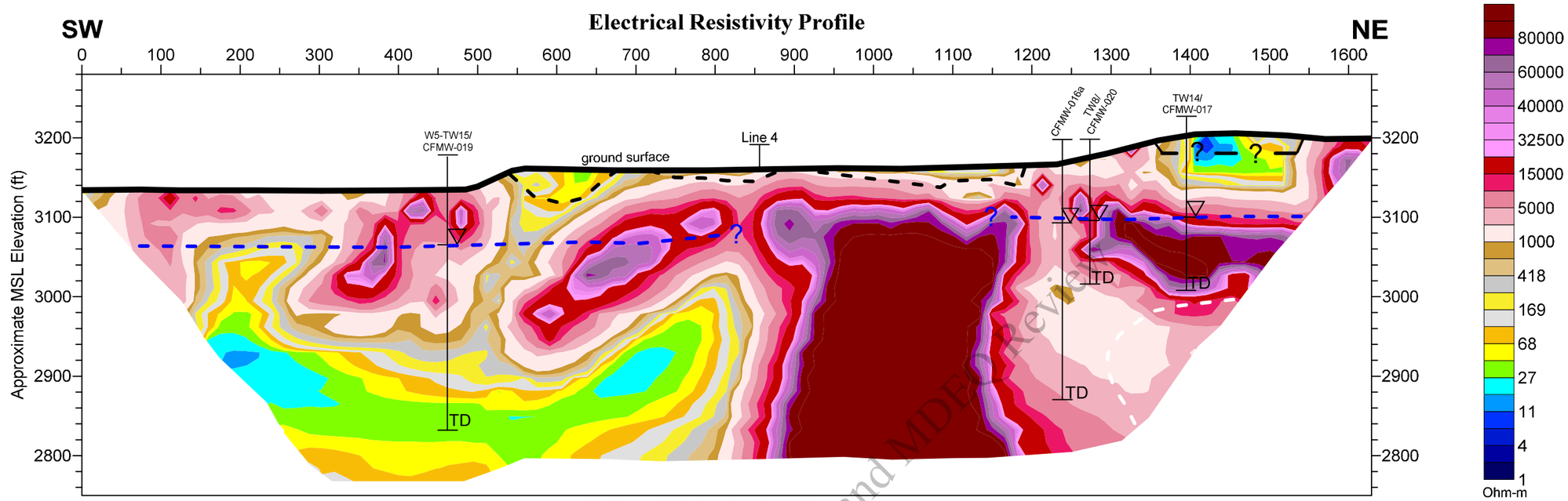
Electrical Resistivity and Induced Polarization Profile - Line 4

PROJECT	Geophysical Investigation 2000 Aluminum Drive Columbia Falls, Montana
PREPARED FOR	Roux Associates Islandia, New York
SCALE	1 inch = 150 feet
FIGURE BY	BAU
REVIEWED BY	LCD
DATE	7/20/16
FIGURE NUMBER	5
PROJECT NUMBER	1604181L

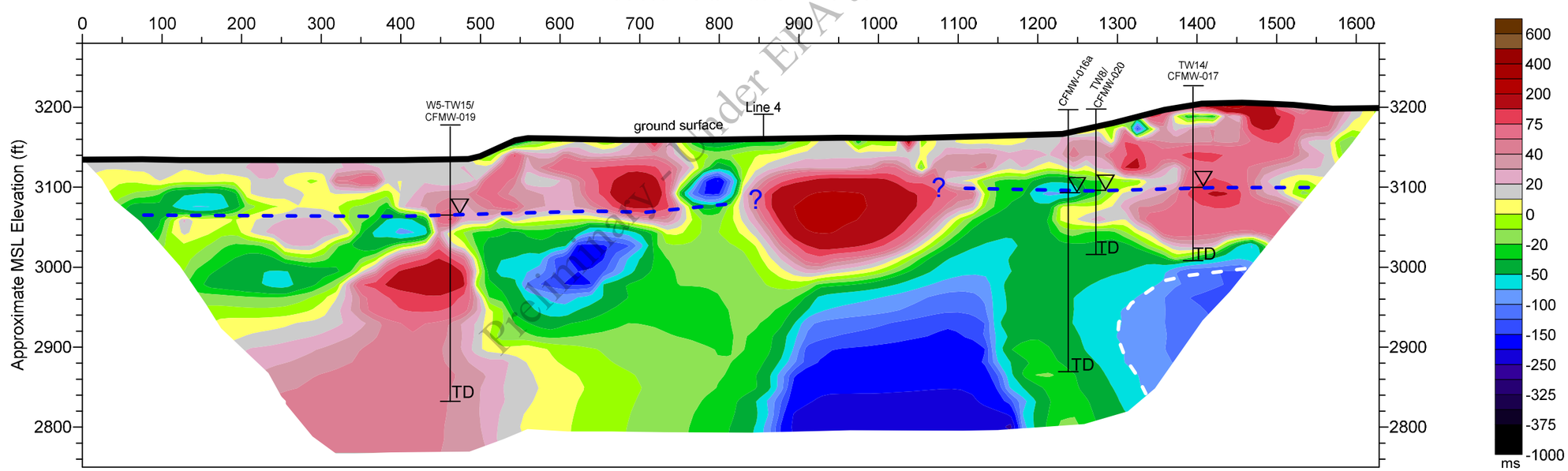
Line 5

Electrical Resistivity Profile



Electrode Spacing = 32.81ft

Induced Polarization Profile



Electrode Spacing = 32.81ft

Preliminary - Under EPA and MDEQ Review

Water Table	Interpreted Base of Landfill Material
TD Total depth of boring	Interpreted elevation of groundwater, queried where uncertain
BD Depth to Bedrock from drilling results	Expected base of landfill material
	Interpreted Top of Bedrock

scale in feet
0 75 150

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Electrical Resistivity and Induced Polarization Profile - Line 5

PROJECT: Geophysical Investigation, 2000 Aluminum Drive, Columbia Falls, Montana

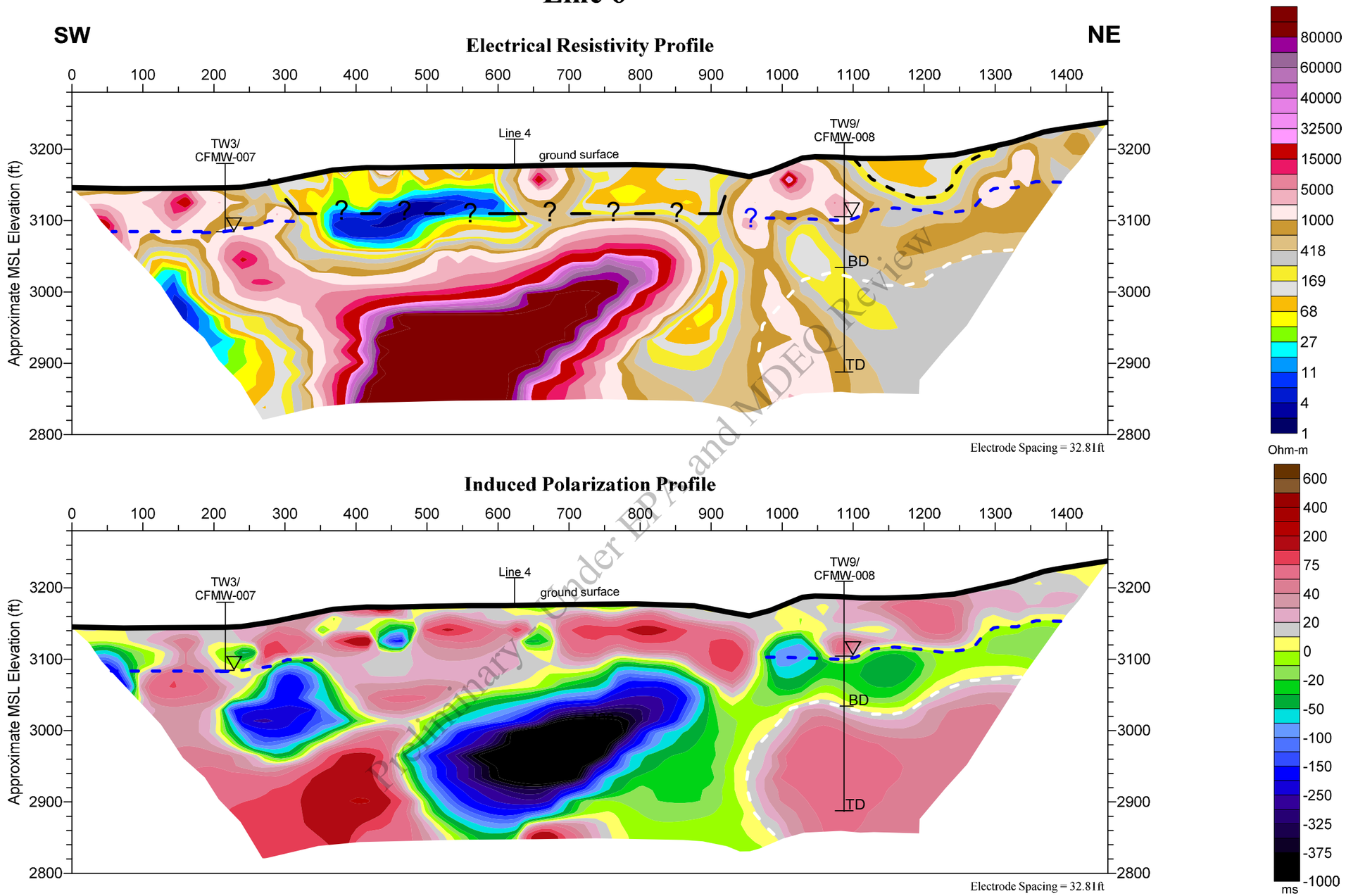
PREPARED FOR: Roux Associates, Islandia, New York

SCALE: 1 inch = 150 feet | FIGURE BY: BAU | REVIEWED BY: LCD | DATE: 7/20/16

FIGURE NUMBER: 6

PROJECT NUMBER: 1604181L

Line 6



Preliminary - Under EPA and MDEQ Review

Legend

- Water Table
- TD — Total depth of boring
- BD — Depth to Bedrock from drilling results
- Interpreted Base of Landfill Material
- Interpreted elevation of groundwater, queried where uncertain
- Expected base of landfill material
- Interpreted Top of Bedrock

scale in feet: 0 75 150

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Electrical Resistivity and Induced Polarization Profile - Line 6

PROJECT	Geophysical Investigation 2000 Aluminum Drive Columbia Falls, Montana
PREPARED FOR	Roux Associates Islandia, New York
SCALE	1 inch = 150 feet
FIGURE BY	BAU
REVIEWED BY	LCD
DATE	7/20/16
FIGURE NUMBER	7
PROJECT NUMBER	1604181L

APPENDIX C

Field Datasheets

1. Soil Gas Screening
2. Drilling and Soil Sampling
3. Monitoring Well Development
4. Groundwater Sampling
5. Surface Water and Sediment Sampling

Preliminary - Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 4/21/16 0815 **Temperature:** 48°F

Sampler Name: Amy Hoffmann **Humidity:** 63%

Calibration Information - Landfill Gas Meter

Make/Model: Landtec GEM2000+ #15765 **CH_4:** 49.5 % LEL

Calibration Gas 1 Lot #: JA0-399-10 **CO_2:** 35.1 %

Cal. Gas Lot Exp. Date: 9/25/2018 **CO:** 49 ppm

Calibration Gas 2 Lot #: KAP-412-5 **H_2S:** 24 ppm

Cal. Gas Lot Exp. Date: 1/20/2017 **O_2:** 20.9 %

Calibration Information - PID

Serial #: PID FA00956 **Zero Calibration:** 0 ppm

Isobutylene (100 ppm) Lot #: MAP-248-100-8 **Span Calibration:** 100 ppm

Isobutylene Exp. Date: 12/14/2019

Preliminary Under EPA and MDEQ Review

Helium Tracer Test

Location ID	Time of Reading	Purge Time (minutes)	Helium at bucket opening	Helium at sample tubing	CH_4 (% LEL)	CO_2 (%)	O_2 (%)	H_2S (%)	VOCs (ppm)	Barometric Pressure
CFSGS-011	1149	5min	2.4%	0	0	0.4	19.1	0	0.0	26.61
CFSGS-010	1355	5min	2.4%	0	0	0.2	19.2	0	0.0	26.55
CFSGS-012	1451	5min	123%	0	0	0.1	18.5	0	0.0	26.53
CFSGS-013	1558	5min	24%	0	0.1	0.0	17.9	0	0.0	26.49
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
		If the Helium readings have a greater ratio than 10% the seals should be rechecked and the tracer gas should be reapplied.								

Soil Gas Sampling Sheet

Date: 4/21/16 Temperature: _____

Sampler Name: Amy Hoffmann Humidity: _____

Calibration Information - Landfill Gas Meter

Make/Model: _____ CH_4: _____ % LEL

Calibration Gas 1 Lot #: _____ CO_2: _____ %

Cal. Gas Lot Exp. Date: _____ CO: _____ ppm

Calibration Gas 2 Lot #: _____ H_2S: _____ ppm

Cal. Gas Lot Exp. Date: _____ O_2: _____ %

Calibration Information - PID

Serial #: _____ Zero Calibration: _____ ppm

Isobutylene (100 ppm) Lot #: _____ Span Calibration: _____ ppm

Isobutylene Exp. Date: _____

Location ID	X Coordinate	Y Coordinate	Notes
CFSGS- 011	843651.6606	1546040.2854	Some black soils on probe
CFSGS- 010	843896.9579	1546021.2543	"
CFSGS- 012	843447.5505	1545754.9563	Black sludge from ~1' bgs 105
CFSGS- 013	843674.6907	1545760.5795	"
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			

Easy advancement could basically push with hands

Preliminary - Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 4/22/16 0845 **Temperature:** 54°F

Sampler Name: Amy Hoffmann **Humidity:** 49%

Calibration Information - Landfill Gas Meter

Make/Model: Landtec GEM2000+ #15765 **CH_4:** 50 % LEL

Calibration Gas 1 Lot #: JAO-399-10 **CO_2:** 35.1 %

Cal. Gas Lot Exp. Date: 9/25/2018 **CO:** 50 ppm

Calibration Gas 2 Lot #: KAP-412-5 **H_2S:** 25 ppm

Cal. Gas Lot Exp. Date: 1/20/2017 **O_2:** 20.7 %

Calibration Information - PID

Serial #: PID #FA00956 **Zero Calibration:** 0 ppm

Isobutylene (100 ppm) Lot #: MAP-248-100-3 **Span Calibration:** 100.0 ppm

Isobutylene Exp. Date: 12/14/2019

Helium Tracer Test

Location ID	Time of Reading	Purge Time (minutes)	Helium at bucket opening	Helium at sample tubing	CH_4 (% LEL)	CO_2 (%)	O_2 (%)	H_2S (%)	VOCs (ppm)	Barometric Pressure
CFSGS- 014	1012	5 min	100Kppm	0ppm	0.0	0.1	16.0	0	4.9	26.35
CFSGS- 015	1308	5 min	2.7%	0ppm	0.0	0.1	14.3	0	0.7	26.33
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
		If the Helium readings have a greater ratio than 10% the seals should be rechecked and the tracer gas should be reapplied.								

Preliminary - Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 4/22/16 Temperature: _____

Sampler Name: Amy Hoffmann Humidity: _____

Calibration Information - Landfill Gas Meter

Make/Model: _____ CH_4: _____ % LEL

Calibration Gas 1 Lot #: _____ CO_2: _____ %

Cal. Gas Lot Exp. Date: _____ CO: _____ ppm

Calibration Gas 2 Lot #: _____ H_2S: _____ ppm

Cal. Gas Lot Exp. Date: _____ O_2: _____ %

Calibration Information - PID

Serial #: _____ Zero Calibration: _____ ppm

Isobutylene (100 ppm) Lot #: _____ Span Calibration: _____ ppm

Isobutylene Exp. Date: _____

Location ID	X Coordinate	Y Coordinate	Notes
CFSGS-014	844142.8615	1545987.8800	inserted 4' bgs
CFSGS-015	844264.0561	1545825.1297	inserted 4' bgs
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			

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Soil Gas Sampling Sheet

Date: 6/3/16 **Temperature:** 65-75°F clear/sunny

Sampler Name: Amy Hoffmann **Humidity:** 56%

Calibration Information - Landfill Gas Meter

Make/Model: GEM 2000+ #15442 **CH_4:** 50.3 % LEL

Calibration Gas 1 Lot #: MAQ-1399-3 **CO_2:** 36.2 %
(CO_2, CH_4, N_2)
Cal. Gas Lot Exp. Date: 12/8/2018 **CO:** 47 ppm

Calibration Gas 2 Lot #: CAP-412-11 **H_2S:** 24 ppm
(CO, H_2S, CH_4, AIR)
Cal. Gas Lot Exp. Date: 9/10/2016 **O_2:** 19.7 %

Calibration Information - PID

Serial #: FA02527 **Zero Calibration:** 0.0 ppm

Isobutylene (100 ppm) Lot #: DAQ-248-100-11 **Span Calibration:** 100.1 ppm

Isobutylene Exp. Date: 4/20/2020

MGD-2002
#034225

Gilian GilAir pump - 200cc
A04025
Helium Gas Lot CAQ-HELIUM-4 Exp 2/29/20

Helium Tracer Test

Location ID	Time of Reading	Purge Time (minutes)	Helium at bucket opening	Helium at sample tubing	CH_4 (% LEL)	CO_2 (%)	O_2 (%)	H_2S (%)	VOCs (ppm)	Barometric Pressure
CFSGS-021	1310	5min	2.6%	0ppm	0.0	0.5	14.2	0	0.1	26.97
CFSGS-022	1325	5min	3.5%	0ppm	0.0	1.2	12.5	0	0.1	26.97
CFSGS-019	1340	5min	2.5%	0ppm	0.0	3.4	10.3	0	0.0	26.96
CFSGS-018	1400	5min	2.5%	0ppm	0.0	2.0	9.1	0	0.0	26.97
CFSGS-020	1410	5min	2.8%	0ppm	0.0	1.4	12.5	0	0.3	26.97
CFSGS-004	1450	5min	4.2%	250ppm	0.0	1.1	11.5	0	0.0	26.96
CFSGS-003	1500	5min	4.5%	0ppm	0.0	0.4	13.2	0	0.1	26.94
CFSGS-002	1520	5min	4.8%	0ppm	0.0	0.1	13.3	0	0.0	26.94
CFSGS-001	1530	5min	2.3%	0ppm	0.0	1.7	11.5	0	0.2	26.94
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										

If the Helium readings have a greater ratio than 10% the seals should be rechecked and the tracer gas should be reapplied.

Preliminary Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 6/3/16 Temperature: 65-75°F clear/sunny

Sampler Name: Amy Hoffmann Humidity: 56%

Calibration Information - Landfill Gas Meter

Make/Model: Gem 2000+ #15442 CH_4: 50.3 % LEL

Calibration Gas 1 Lot #: MAO-399-3 (CO_2, CH_4, N_2) CO_2: 36.2 %

Cal. Gas Lot Exp. Date: 12/8/2018 CO: 47 ppm

Calibration Gas 2 Lot #: CAP-412-11 (CO, H_2S, CH_4, AIR) H_2S: 24 ppm

Cal. Gas Lot Exp. Date: 9/10/2016 O_2: 19.7 %

Calibration Information - PID

Serial #: FA02527 Zero Calibration: 0.0 ppm

Isobutylene (100 ppm) Lot #: DAQ-248-100-11 Span Calibration: 100.1 ppm

Isobutylene Exp. Date: 4/20/2020 Gilian G.I.A.r Pump - 200cc #A04025

MGD-2002 - Helium Detector #034225 Helium Gas Lot CAG-HELIUM-4 Exp. 2/29/20

Location ID	X Coordinate	Y Coordinate	Notes
CFSGS-021	841843.5815	1547848.0015	Industrial Landfill
CFSGS-022	841653.0749	1548044.5565	Industrial Landfill
CFSGS-019	841994.6134	1548079.9445	Industrial Landfill
CFSGS-018	842216.3436	1548371.8564	Industrial Landfill
CFSGS-020	842073.4342	1547808.6419	Industrial Landfill
CFSGS-004	843974.9378	1546681.9453	Sanitary Landfill
CFSGS-003	844162.0174	1546726.3933	Sanitary Landfill
CFSGS-002	844070.6171	1546899.6343	Sanitary Landfill
CFSGS-001	843897.6924	1546867.9771	Sanitary Landfill
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			

Preliminary - Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 6/4/16 **Temperature:** 50-82°F

Sampler Name: Amy Hoffmann **Humidity:** 83% ↓

Calibration Information - Landfill Gas Meter

Make/Model: GEM 2000+ # 15442 **CH_4:** 50.4 % LEL

Calibration Gas 1 Lot #: MAO-399-3 **CO_2:** 34.7 %

Cal. Gas Lot Exp. Date: 12/8/2018 **CO:** 49 ppm

Calibration Gas 2 Lot #: CAP-412-11 **H_2S:** 24 ppm

Cal. Gas Lot Exp. Date: 9/10/2016 **O_2:** 21.2 %

Calibration Information - PID

Serial #: FA02531 **Zero Calibration:** 0.0 ppm

Isobutylene (100 ppm) Lot #: DAQ-248-100-11 **Span Calibration:** 100.1 ppm

Isobutylene Exp. Date: 4/20/2020 Gilian Gilair Pump - 2000c #A04025

MGD-2002 #034225

Helium Gas Lot # CAQ-HELIUM-4 Exp. 2/29/2020

Helium Tracer Test

Location ID	Time of Reading	Purge Time (minutes)	Helium at bucket opening	Helium at sample tubing	CH_4 (% LEL)	CO_2 (%)	O_2 (%)	H_2S (%)	VOCs (ppm)	Barometric Pressure
CFSGS-009	0830	5min	2.5%	0ppm	0.0	0.6	18.8	0	0.0	27.00
CFSGS-008	0845	5min	2.6%	0ppm	0.0	0.3	20.8	0	0.0	27.00
CFSGS-007	0900	5min	2.7%	0ppm	0.0	1.8	13.0	0	0.0	27.00
CFSGS-006	0915	5min	2.8%	0ppm	0.0	0.6	17.8	0	0.6	27.00
CFSGS-005	0930	5min	2.7%	100ppm	0.0	0.1	20.8	0	0.1	26.99
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										

If the Helium readings have a greater ratio than 10% the seals should be rechecked and the tracer gas should be reapplied.

Preliminary Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 6/4/16 Temperature: 50-82°F

Sampler Name: Amy Hoffmann Humidity: 83% ↓

Calibration Information - Landfill Gas Meter

Make/Model: GEM 2000+ #15442 CH_4: 50.4 % LEL

Calibration Gas 1 Lot #: MAO-399-3 CO_2: 34.7 %

Cal. Gas Lot Exp. Date: 12/8/2018 CO: 49 ppm

Calibration Gas 2 Lot #: CAP-412-11 H_2S: 24 ppm

Cal. Gas Lot Exp. Date: 9/10/2016 O_2: 21.2 %

Calibration Information - PID

Serial #: FA Zero Calibration: 0.0 ppm

Isobutylene (100 ppm) Lot #: DAQ-248-100-11 Span Calibration: 100.1 ppm

Isobutylene Exp. Date: 4/20/2020 Gilian GilAir pump - 200cc #A04025

MGD-2002 #034225 Helium Gas Lot # CAQ-HELIUM-4 Exp 2/29/2020

Location ID	X Coordinate	Y Coordinate	Notes
CFSGS-009	843302.8026	1546313.8646	West Landfill
CFSGS-008	843491.3772	1546339.3974	West landfill
CFSGS-007	843218.7289	1546331.1285	West Landfill
CFSGS-006	843251.1942	1546594.2337	West Landfill
CFSGS-005	843554.1794	1546591.3034	West Landfill
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			

Preliminary - Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 4/20/16 0900 **Temperature:** 57°F

Sampler Name: Amy Hoffmann **Humidity:** 57%

Calibration Information - Landfill Gas Meter

Make/Model: Landtec GEM 2000 + #15765 **CH_4:** 50.1 % LEL

Calibration Gas 1 Lot #: JAO-399-10 **CO_2:** 34.9 %

Cal. Gas Lot Exp. Date: 9/25/2018 **CO:** 52 ppm

Calibration Gas 2 Lot #: KAP-412-5 **H_2S:** ~~20~~ 27 AH ppm

Cal. Gas Lot Exp. Date: 1/20/2017 **O_2:** 20.7 %

Calibration Information - PID

Serial #: FA00956 **Zero Calibration:** 0 ppm

Isobutylene (100 ppm) Lot #: MAP-248-100-8 **Span Calibration:** 99.7 ppm

Isobutylene Exp. Date: 12/14/2019

Helium Tracer Test

Location ID	Time of Reading	Purge Time (minutes)	Helium at bucket opening	Helium at sample tubing	CH_4 (% LEL)	CO_2 (%)	O_2 (%)	H_2S (%)	VOCs (ppm)	Barometric Pressure
CFSGS- 034	1130	—	—	—	0.0	0.1	20.3	0	0.0	26.70
CFSGS- 035	1136	—	—	—	0.0	1.1	17.6	0	0.0	26.70
CFSGS- 036	1144	—	—	—	0.0	1.1	17.1	0	0.0	26.70
CFSGS- 037	1150	—	—	—	0.0	1.4	16.0	0	0.0	26.69
CFSGS- 038	1157	—	—	—	0.0	0.0	20.5	0	0.0	26.69
CFSGS- 039	1226	—	—	—	0.0	0.4	16.6	0	0.0	26.68
CFSGS- 040	1232	—	—	—	0.0	2.2	16.2	0	0.0	26.68
CFSGS- 041	1237	—	—	—	0.1	0.0	20.6	0	0.0	26.68
CFSGS- 042	1242	—	—	—	0.0	0.1	19.7	0	0.0	26.68
CFSGS- 043	1248	—	—	—	0.0	0.1	20.5	0	0.0	26.68
CFSGS-										
CFSGS-										
CFSGS-										
CFSGS-										
		If the Helium readings have a greater ratio than 10% the seals should be rechecked and the tracer gas should be reapplied.								

Preliminary - Under EPA and MDEQ Review

Soil Gas Sampling Sheet

Date: 4/20/16 Temperature: _____

Sampler Name: Amy Hoffmann Humidity: _____

Calibration Information - Landfill Gas Meter

Make/Model: _____ CH_4: _____ % LEL

Calibration Gas 1 Lot #: _____ CO_2: _____ %

Cal. Gas Lot Exp. Date: _____ CO: _____ ppm

Calibration Gas 2 Lot #: _____ H_2S: _____ ppm

Cal. Gas Lot Exp. Date: _____ O_2: _____ %

Calibration Information - PID

Serial #: _____ Zero Calibration: _____ ppm

Isobutylene (100 ppm) Lot #: _____ Span Calibration: _____ ppm

Isobutylene Exp. Date: _____

Preliminary - Under EPA and MDEQ Review

Location ID	X Coordinate	Y Coordinate	Notes
CFSGS- 034	843685.9795	1546395.1028	Vent # 7
CFSGS- 035	843598.6092	1546514.5882	Vent # 6
CFSGS- 036	843513.2784	1546643.8614	Vent # 5
CFSGS- 037	843497.1152	1546731.5413	Vent # 4
CFSGS- 038	843358.8089	1546679.7561	Vent # 3
CFSGS- 039	843422.1605	1546292.8092	Vent # 8
CFSGS- 040	843291.9777	1546352.2290	Vent # 9
CFSGS- 041	843192.3135	1546475.0254	Vent # 1
CFSGS- 042	843251.1127	1546573.6411	Vent # 2
CFSGS- 043	843385.0346	1546448.2519	Vent # 10
CFSGS-			
CFSGS-			
CFSGS-			
CFSGS-			

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFDS-003-SO-2-3 **Sample Time:** 1000

Date: 4/12/16 **Sampler:** SW

Weather: clear 60°s

Latitude: **Longitude:**

Coordinate system: **Sample Interval (ft-bls):** 2 - 3

Boring ID: CFDS-003 **PID Reading:** 1.0 ppm

Associated Site Feature: Drainage System **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Moist, dark brown coarse sand with some fine gravel. glass and aluminum debris

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sample collected from western manhole

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001.Y002

Sample ID: CFDS-005-SO-2-3

Sample Time: 1040

Date: 4/12/16

Sampler: AH

Weather: Cloudy, 50°F

Latitude: 342534.4850

Longitude: 154 4026.5945

Coordinate system:

Sample Interval (ft-bls): 2-3

Boring ID:

PID Reading: ~~0.3~~ 1.1 (SHW)

Associated Site Feature: Drainage Structure

Within Site Feature (Y/N): Y

Grab [X]

Composite [ ]

Visual Observations: Moist, dark brown, coarse SAND, some fine gravel, wood debris

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample		
Field duplicate	X	DUP-1
Matrix Spike		
Matrix Spike Duplicate		

Additional Notes:

Sample collected from eastern manhole grate

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFDS-005-SO-6-8	**Sample Time:**	0830
Date:	7/15/16	**Sampler:**	SW
Weather:	Clear, 60°F		
Latitude:	1544026.5946	**Longitude:**	842534.4851
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	
Boring ID:	CFDS-005	**PID Reading:**	0.4
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c GRAVEL with some cobbles, little f-m sand, little wood debris, wet, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.00014002
Sample ID:	CFDS-007-SO-3-4	**Sample Time:**	1120
Date:	4/12/16	**Sampler:**	SW
Weather:	Overcast 55°		
Latitude:	842736.2155	**Longitude:**	1544148.6713
Coordinate system:		**Sample Interval (ft-bls):**	3-4
Boring ID:	CFDS-007	**PID Reading:**	1.3 ppm
Associated Site Feature:	Drainage Structure	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark grey fine to coarse SAND, some fine Gravel trace silt very moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFDS-007-SO-8-10	**Sample Time:**	1400
Date:	7/14/16	**Sampler:**	SW
Weather:	Clear, 77°F		
Latitude:	1544148.6714	**Longitude:**	842736.2155
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	8-10
Boring ID:	CFDS-007	**PID Reading:**	6.0
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Black f-m SAND with some f-m gravel, little silt, wet, dense/soft, odor

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFDS-007-SO-16-18	**Sample Time:**	1430
Date:	7/14/16	**Sampler:**	SW
Weather:	Clear, 77° F		
Latitude:	1544148.4714	**Longitude:**	842736.2155
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	16-18
Boring ID:	CFDS-007	**PID Reading:**	1.4
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown to gray f-c GRAVEL, some m-c sand, little crushed rock, trace silt, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC
Project Number: 2476.00014002

Sample ID: CFDS-013-SO-2-3
Sample Time: 1225

Date: 4/15/16
Sampler: SW

Weather: Clear, Windy 40°

Latitude: 843774.2989
Longitude: 1544452.0919

Coordinate system: MT State Plane
Sample Interval (ft-bls): 2-3

Boring ID: CFDS-013
PID Reading: 0.0 screen

Associated Site Feature: Drainage Structure
Within Site Feature (Y/N): Yes

Grab [X]
Composite [ ]

Visual Observations: Grey to light grey, fine SAND ~~some~~ and silt, moist to wet
Some very light grey to white fine sand and silt throughout

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFDS-013-SO-5-7	**Sample Time:**	1220
Date:	7/14/16	**Sampler:**	SW
Weather:	clear, 75°F		
Latitude:	1544452.0920	**Longitude:**	843774.2990
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	5-7
Boring ID:	CFDS-013	**PID Reading:**	1.4
Associated Site Feature:	Raw Materials Loading Area	**Within Site Feature (Y/N):**	
Grab	X	**Composite**	

Visual Observations: Black f. SAND with some silt, soft/loose, wet trace f-m gravel, odor

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFDS-013-SO-12-14	**Sample Time:**	1230
Date:	7/14/10	**Sampler:**	SW
Weather:	clear, 75°F		
Latitude:	1544452.0920	**Longitude:**	843774.2990
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	12-14
Boring ID:	CFDS-013	**PID Reading:**	0.2
Associated Site Feature:	Raw Materials Loading Area	**Within Site Feature (Y/N):**	

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f-c GRAVEL with some m-c sand, little cobbles, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-002-SO-0-0.5	**Sample Time:**	1010
Date:	6/13/16	**Sampler:**	SW
Weather:	overcast, 60° F		
Latitude:	To be surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-002	**PID Reading:**	0.0
Associated Site Feature:	Drum Storage Area	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND w some cobbles, little m gravel, little silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-002-SO-0.5-2	**Sample Time:**	1015
Date:	6/13/16	**Sampler:**	SW
Weather:	Overcast, 60°F		
Latitude:	To be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-002	**PID Reading:**	0.0
Associated Site Feature:	Drum Storage Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown to orange f. SAND with little silt, little f-c gravel, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-002 - SO-10-12	**Sample Time:**	1030
Date:	6/13/16	**Sampler:**	SW
Weather:	Overcast, 60° F		
Latitude:	To be surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10 - 12
Boring ID:	CFMW-002	**PID Reading:**	0.1
Associated Site Feature:	Former Drum Storage Area	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some m-c gravel, trace cobbles, little silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-003a-SO-0-0.5	**Sample Time:**	0900
Date:	5/31/16	**Sampler:**	A. Hoffmann
Weather:	clear 50°		
Latitude:	TO BE SURVEYED	**Longitude:**	–
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0 - 0.5
Boring ID:	CFMW-003a	**PID Reading:**	0.0
Associated Site Feature:	Industrial Landfill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some gravel trace silt, wet from surface

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-003a-SO-0.5-2 **Sample Time:** 0910

Date: 5/31/16 **Sampler:** A. Hoffmann

Weather: Clear 50°

Latitude: To be surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5 - 2

Boring ID: CFMW-003a **PID Reading:** 0.3

Associated Site Feature: Industrial Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some gravel trace silt and cobble; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-003a-SO-10-12 **Sample Time:** 0920

Date: 5/31/16 **Sampler:** A Hoffmann

Weather: Clear 55°

Latitude: To be surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10 - 12

Boring ID: CFMW-003a **PID Reading:** 2.3

Associated Site Feature: Industrial Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some Gravel trace silt; dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP9 @ 0935

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-003a-SO-23-28	**Sample Time:**	1215
Date:	[redacted] 6/2/16	**Sampler:**	A. Hoffmann
Weather:	clear 70°		
Latitude:	to be surveyed	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	23-28
Boring ID:	CFMW-003a	**PID Reading:**	0.0
Associated Site Feature:	Industrial Landfill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown f+ SAND and SILT, wet ~~[illegible]~~

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-008a-SO-0-0.5	**Sample Time:**	0925
Date:	6/13/16	**Sampler:**	AH
Weather:	clear 50°		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-008a	**PID Reading:**	0.1
Associated Site Feature:	Sanitary Landfill	**Within Site Feature (Y/N):**	NO

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND little f-c Gravel; dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-008a-SO-0-0.5-Pb **Sample Time:** 0930

Date: 6/13/16 **Sampler:** AH

Weather: Clear 55°

Latitude: To be surveyed **Longitude:** –

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-008a **PID Reading:** 0.1

Associated Site Feature: Sanitary Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND, little f-c Gravel, dry (Note - Sieved)

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

LEAD ONLY

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-008a-S0-0.5-2	**Sample Time:**	0935
Date:	6/13/16	**Sampler:**	AH
Weather:	Clear 55°		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-008a	**PID Reading:**	0.1
Associated Site Feature:	Sanitary Landfill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, some m Gravel, little cobble (concrete)

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-008a-SO-10-12 **Sample Time:** 0945

Date: 6/13/16 **Sampler:** AH

Weather: clear 55°

Latitude: to be surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10 - 12

Boring ID: CFMW-008a **PID Reading:**

Associated Site Feature: Sanitary Landfill **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c (+) SAND, some f-c Gravel trace cobble, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP14 @ 1200

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-008a-SO-88-93 **Sample Time:** 1430

Date: 6/13/16 **Sampler:** AH

Weather: Clear 70°

Latitude: To be surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 88-93

Boring ID: CFMW-008a **PID Reading:** 0.0

Associated Site Feature: Sanitary Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND, Some Gravel, little silt trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	~~X~~ (AH)
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

~~Also collected for grainsize, etc.~~ (AH)

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-008a-50-90-91-GSA	**Sample Time:**	1430
Date:	6/13/16	**Sampler:**	AH
Weather:	Clear 70°F		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	90-91
Boring ID:	CFMW-008a	**PID Reading:**	0.0
Associated Site Feature:	Sanitary Land fill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some f-c Gravel, little silt trace cobble med. dense/stiff

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

First aquifer, beneath water table

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-010-SO-0-0.5	**Sample Time:**	1000
Date:	5/18/16	**Sampler:**	AH
Weather:	Clear 65°		
Latitude:	TO BE SURVEYED	**Longitude:**	–
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-010	**PID Reading:**	1.3
Associated Site Feature:	Former Drum Storage	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown F-M SAND, some C sand, little C Gravel; dry

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	~~X~~ (4)
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001.Y002

Sample ID: CFMW-010-SO-0~~0~~0.5-Pb **Sample Time:** 1010

Date: 5/18/16 **Sampler:** AH

Weather: Clear 65°F

Latitude: TO BE SURVEYED **Longitude:** –

Coordinate system: MT State Plane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-010 **PID Reading:** 1.3 ppm

Associated Site Feature: Former Drum Storage **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown fine SAND; dry; sieved w/ 60 mesh

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	
Lead (Sieved)	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.00014002

Sample ID: CFMW-010-SO-0.5-2 **Sample Time:** 1005

Date: 5/18/16 **Sampler:** AH

Weather: Clear 65°

Latitude: TO BE SURVEYED **Longitude:** –

Coordinate system: MT State Plane **Sample Interval (ft-bls):** 0.5 - 2

Boring ID: CFMW-010 **PID Reading:** 1.3 ppm

Associated Site Feature: Former Drum Storage **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND, some c Gravel, ~~little~~ trace silt; dry

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ (1)
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFMW-010-SO-10-12

Sample Time: 1030

Date: 5/18/16

Sampler: AH

Weather: Clear 70°

Latitude: TO BE SURVEYED

Longitude:

Coordinate system: MT State Plane

Sample Interval (ft-bls): 10-12

Boring ID: CFMW-010

PID Reading: 0.9

Associated Site Feature: Former Drum Storage

Within Site Feature (Y/N): Yes

Grab [X]

Composite [ ]

Visual Observations: Brown m-c+ SAND, some f-c Gravel, trace Cobble; dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ (A)
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-011a-SO-0-0.5	**Sample Time:**	1300
Date:	6/25/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-011a	**PID Reading:**	0.0
Associated Site Feature:	Former Drum Storage	**Within Site Feature (Y/N):**	No
Grab	X	**Composite**	

Visual Observations: Brown f(+)-c SAND Some f-c Gravel and Silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-011a-SO-0-0.5-Pb	**Sample Time:**	1305
Date:	6/25/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-011a	**PID Reading:**	0.0
Associated Site Feature:	Former Drum Storage	**Within Site Feature (Y/N):**	No
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f(+)-c SAND, some f-c Gravel and silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead Only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved

mass weight: 1,606 g

sieved weight: 199 g

Note - mainly fines but clumped so not all went through sieve

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-011a-SO-0.5-2 **Sample Time:** 1310

Date: 6/25/16 **Sampler:** AH

Weather: clear 60°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-011a **PID Reading:** 0.0

Associated Site Feature: Former Drum Storage **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Brown f SAND some Silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP 18 @ 1200

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-011a-SO-10-12 **Sample Time:** 1320

Date: 6/25/16 **Sampler:** AH

Weather: clear 60°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-011a **PID Reading:** 0.0

Associated Site Feature: Former Drum Storage **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-c GRAVEL, some cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-011a-SO-31-36	**Sample Time:**	1345
Date:	6/29/16	**Sampler:**	AH
Weather:	Clear 85°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	31-36
Boring ID:	CFMW-011a	**PID Reading:**	0.0
Associated Site Feature:	Former Drum Storage	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c(+) Gravel, some cobble with f-c(+) sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Collected during CFMW-011 advancement due to no recovery during CFMW-011a advancement

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-011a-SO-81-82-GSA **Sample Time:** 1445

Date: 6/25/16 **Sampler:** AH

Weather: Overcast 55°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 81-82

Boring ID: CFMW-011a **PID Reading:** 0.0

Associated Site Feature: Former Drum Storage **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

First aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-011A-SC-136-137-GSA **Sample Time:** 0930

Date: 6/27/16 **Sampler:** AH

Weather: clear 75°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 136-137

Boring ID: CFMW-011A **PID Reading:** 0.0

Associated Site Feature: Former Drum Storage **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: orange brown/tan SILTY CLAY little f sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

confining layer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-011a-SO-155-156-GSA	**Sample Time:**	1230
Date:	6/27/16	**Sampler:**	AH
Weather:	clear 75°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	155-156
Boring ID:	CFMW-011a	**PID Reading:**	0.0
Associated Site Feature:	Former Drum Storage	**Within Site Feature (Y/N):**	No

Grab [x] **Composite** [ ]

Visual Observations: Brown/orangeish brown f-c (+) SAND some f-c Gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Second Aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-012a-SO-0-0.5 **Sample Time:** 1200

Date: 5/20/16 **Sampler:** A. Hoffmann

Weather: Overcast, 50°F

Latitude: To Be Surveyed **Longitude:** –

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-012a **PID Reading:** 0.7

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, trace silt and gravel; dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: ~~CFMW-012a-SO-0.0a~~ CFMW-012a-SO-0.-0.5-Pb **Sample Time:** 1205

Date: 5/20/16 **Sampler:** A. Hoffmann

Weather: Overcast 50°

Latitude: TO BE SURVEYED **Longitude:** -

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-012a **PID Reading:** 0.7

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, trace silt and gravel; dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved only

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-012a-SO-0.5-2 **Sample Time:** ~~[illegible]~~ 1210

Date: 5/20/16 **Sampler:** A. Hoffmann

Weather: overcast 50°

Latitude: TO BE SURVEYED **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5 - 2

Boring ID: CFMW-012a **PID Reading:** 0.7

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: ~~Reddish~~ Brown f-m SAND, some Gravel, little Silt; dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

CFMW-DUP3-SO 1400

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-012a-SO 10-12 **Sample Time:** 1230

Date: 5/20/16 **Sampler:** A. Hoffmann

Weather: overcast 50°F

Latitude: TO BE SURVEYED **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-012a **PID Reading:** 0.0

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown C SAND, some f-c Gravel, little Cobble trace f-m sand; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

MS/MSD collected

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-012a-SO-68-73 **Sample Time:** 1415

Date: 5/20/16 **Sampler:** A. Hoffmann

Weather: overcast 50°

Latitude: To be Surveyed **Longitude:** –

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 68-73

Boring ID: CFMW-012a **PID Reading:** 0.0

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Glacial till and fine sands

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-016a-SO-0-0.5 **Sample Time:** 1400

Date: 6/21/16 **Sampler:** AH

Weather: overcast, rain earlier, 50°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFmw-016a **PID Reading:** 0.0

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, some f-m Gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-016a-SO-0-0.5-Pb **Sample Time:** 1405

Date: 6/21/16 **Sampler:** AH

Weather: Overcast; rain earlier; 50°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-016a **PID Reading:** 0.0

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dk brown f-c SAND, some f-m Gravel, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved

mass weight: 1,357g

Sieved weight: 102g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-016a-SO-0.5-2 **Sample Time:** 1410

Date: 6/21/16 **Sampler:** AH

Weather: overcast, rain earlier, 50°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-016a **PID Reading:** 0.6

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND, some f-c Gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-016a-SO-10-12 **Sample Time:** 1420

Date: 6/21/16 **Sampler:** AH

Weather: overcast, rain earlier; 50°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-016a **PID Reading:** 0.6

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dk grey f(+)-m SAND some silt and f-c gravel trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-016a-SO-79-84 **Sample Time:** 1600

Date: 6/21/16 **Sampler:** AH

Weather: overcast, rain earlier, 50°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 79-84

Boring ID: CFMW-016a **PID Reading:** 0.0

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown CSAND some f-m Gravel trace f-m sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-016a-SO-121-122-GSA **Sample Time:** 0945

Date: 6/22/16 **Sampler:** AH

Weather: clear 70°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 121-122

Boring ID: CFMW-016a **PID Reading:** 0.0

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f(+)-c SAND little silt cobble and f-c gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-0166a-SO-180-181-GSA **Sample Time:** 1600

Date: 6/22/16 **Sampler:** AH

Weather: Clear 70°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 180-181

Boring ID: CFMW-0166a **PID Reading:** 0.0

Associated Site Feature: Center Landfill **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Orangebrown f(+)-c SAND and SILT some f Gravel and clay

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-018-SO-0-0.5	**Sample Time:**	0945
Date:	5/19/16	**Sampler:**	SW
Weather:	cloudy, showers, 57°F		
Latitude:	TO BE SURVEYED	**Longitude:**	–
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-018	**PID Reading:**	17
Associated Site Feature:	East Landfill	**Within Site Feature (Y/N):**	
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown SILT w/ some fine sand, little gravel, cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

- Additional sample collected for lead-sieved (CFMW-018-SO-0-0.5-Pb)

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-018-SO-0.5-2.0	**Sample Time:**	0955
Date:	5/19/16	**Sampler:**	SW
Weather:	cloudy, showers, 57° F		
Latitude:	TO BE SURVEYED	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 - 2
Boring ID:	CFMW - 018	**PID Reading:**	1.5
Associated Site Feature:	East Landfill	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown SILT with some fine sand, little gravel, cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW - 018 - SO - 10 - 12 **Sample Time:** 1000

Date: 5/19/16 **Sampler:** SW

Weather: cloudy, showers, 57° F

Latitude: TO BE SURVEYED **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10 - 12

Boring ID: (SW) East Landfill **PID Reading:** 2.4

Associated Site Feature: CFMW - 018 **Within Site Feature (Y/N):**

Grab [X] **Composite** [ ]

Visual Observations: fine-medium SAND with little gravel, Brown, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

CFMW - DUP2 - SO @ 1010

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-019a-SO-0-0.5 **Sample Time:** 0830

Date: 5/25/16 **Sampler:** A Hoffmann

Weather: overcast/cloudy 60°

Latitude: To be Surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-019a **PID Reading:** 0.1

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, little Gravel trace silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-019a-SO-0.5-2 **Sample Time:** 0835

Date: 5/24/16 **Sampler:** A. Hoffmann

Weather: overcast 60°

Latitude: To be surveyed **Longitude:** –

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-019a **PID Reading:** 0.3

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Tan f-c SAND, some silt, little Gravel, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
* Field duplicate	X
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

* CFMW-DUP5-SO @ 0900

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-019a-SO-10-12 **Sample Time:** 0845

Date: 5/24/16 **Sampler:** A. Hoffmann

Weather: Overcast 60°

Latitude: To Be Surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-019a **PID Reading:** 2.0

Associated Site Feature: Wet Scrubber Sludge Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-C+ SAND, some Gravel and Cobble, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-022-S0-0-0.5	**Sample Time:**	SW ~~1130~~ 1200
Date:	06/02/16	**Sampler:**	SW
Weather:	overcast, 50°F		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-022	**PID Reading:**	0.0
Associated Site Feature:	Op Grid	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND w/ some gravel, little cobbles, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	
Lead	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved

Sample collected

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.00014002
Sample ID:	CFMW-022-SO-0.5-2	**Sample Time:**	1230
Date:	06/02/16	**Sampler:**	SW
Weather:	overcast, 50°F		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-022	**PID Reading:**	0.1
Associated Site Feature:	Op Gnd	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f-c SAND w/ some f-c gravel, some cobbles, little crushed rock trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP 12 @ 1240

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-022-SO-10-12	**Sample Time:**	1315
Date:	06/02/16	**Sampler:**	SW
Weather:	overcast, 50° F		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-022	**PID Reading:**	0.0
Associated Site Feature:	Op Grid	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w f-c gravel, some cobbles, trace silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-023a-SO-0-0.5	**Sample Time:**	1500
Date:	6/17/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-023a	**PID Reading:**	0.0
Associated Site Feature:	East Landfill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, little Gravel, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-023a-S0-0-0.5-Pb **Sample Time:** 1505

Date: 6/17/16 **Sampler:** AH

Weather: Clear 60°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-023a **PID Reading:** 0.0

Associated Site Feature: East Landfill **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, little Gravel trace silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved

mass weight: 2,664 g

Sieved weight: 266 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-023a-SO-0.5-2 **Sample Time:** 1510

Date: 6/17/16 **Sampler:** AH

Weather: Clear 60°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-023a **PID Reading:** 0.0

Associated Site Feature: East Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Light brown F-C SAND, Some f-m Gravel little Silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-023a-SO-10-12 **Sample Time:** 1520

Date: 6/17/16 **Sampler:** AH

Weather: Clear 60°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-023a **PID Reading:** 0.6

Associated Site Feature: East Landfill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown ~~Ang~~ f-c SAND and Gravel some Silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-023a-SO-123-128	**Sample Time:**	1410
Date:	6/18/16	**Sampler:**	AH
Weather:	overcast 60°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	123-128
Boring ID:	CFMW-023a	**PID Reading:**	0.0
Associated Site Feature:	East Landfill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Tan f SAND and grey f-c sand silt gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-023A-SO-124-125-GSA	**Sample Time:**	1415
Date:	6/18/16	**Sampler:**	AH
Weather:	overcast 60°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	124-125
Boring ID:	CFMW-023A	**PID Reading:**	0.0
Associated Site Feature:	East Landfill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Tan f SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-0-0.5 **Sample Time:** 0810

Date: 7/13/16 **Sampler:** AH

Weather: ~~clear 70°F~~ rain, light 55°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-025a **PID Reading:** 0.1

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND with gravel and organic material trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-0-0.5-Pb **Sample Time:** 0815

Date: 7/13/16 **Sampler:** AH

Weather: ~~Clear 70°F~~ Rain, light 55°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-025a **PID Reading:** 0.1

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** N - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Dark Brown f-c SAND little gravel and organic material trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL ~~Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved

mass weight - 1,899g

sieved weight - 77g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-0.5-2 **Sample Time:** 0820

Date: 7/13/16 **Sampler:** AH

Weather: ~~clear 70°F~~ Light rain, 55°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-025a **PID Reading:** 0.2

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some f-m Gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-10-12 **Sample Time:** 0820

Date: 7/13/16 **Sampler:** AH

Weather: ~~clear 70°F~~ rain, light 55°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-025a **PID Reading:** 0.0

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-m GRAVEL, some cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-35-40 **Sample Time:** 0930

Date: ~~[illegible]~~ 7/13/16 **Sampler:** AH

Weather: ~~[illegible]~~ overcast 60°

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** ~~[illegible]~~ 35-40

Boring ID: CFMW-025a **PID Reading:** 0.0

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Greybrown SILT some f ~~[illegible]~~ sand little ~~[illegible]~~ gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-37-38-16 **Sample Time:** 0945

Date: 7/13/16 **Sampler:** AH

Weather: overcast 60°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 37-38

Boring ID: CFMW-025a **PID Reading:** 0.0

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Gray brown SILT, some f sand little clay and gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

First aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-025a-SO-65-66-GA **Sample Time:** 1000

Date: 7/13/16 **Sampler:** AH

Weather: Clear 75°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 65-66

Boring ID: CFMW-025a **PID Reading:** 0.0

Associated Site Feature: NW Percolation Pond **Within Site Feature (Y/N):** No SW corner

Grab [X] **Composite** [ ]

Visual Observations: Greyish brown SILT some clay and f-c Sand with f-m gravel trace boulder fragments

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

confining layer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-0250-SO-90-91-694	**Sample Time:**	1300
Date:	7/13/16	**Sampler:**	AH
Weather:	Clear 75°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	90-91
Boring ID:	CFMW-0250	**PID Reading:**	0.0
Associated Site Feature:	NW Percolation Pond	**Within Site Feature (Y/N):**	NO - NW corner
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown/tan f-c (f) SAND some silt and f-c gravel trace clay

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

second aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-026-SO-0-0.5 **Sample Time:** 1330

Date: 6/14/16 **Sampler:** SW

Weather: overcast, light rain, 50°F

Latitude: To be surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-026 **PID Reading:** 0.1

Associated Site Feature: NW Pere Pond **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dk brown SAND w/ organic material, some silt, trace gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

LEAD SAMPLE / SIEVED

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-026-SO-0-0.5-Pb **Sample Time:** 1335

Date: 6/14/16 **Sampler:** SW

Weather: rainy 50°

Latitude: To be surveyed **Longitude:** –

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-026 **PID Reading:** 0.1

Associated Site Feature: NW Perc Pond **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dark Brown SAND w organic matter/topsoil, some silt, trace gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Mass weight - 1114g

Sieved fraction weight - 81g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-026-SO-0.5-2 **Sample Time:** 1340

Date: 06/14/16 **Sampler:** SW

Weather: overcast, light rain 50°F

Latitude: To be surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-026 **PID Reading:** 0.1

Associated Site Feature: NW Perc Pond **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dk. brown SAND w/ some silt, little gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP 15 - SO @ 1400

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-026-SO-10-12	**Sample Time:**	1410
Date:	06/14/16	**Sampler:**	SW
Weather:	overcast, light rain, 50°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-026	**PID Reading:**	0.3
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown m. SAND w/ m. gravel, little cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

MS/MSD

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-027-SO-0-0.5	**Sample Time:**	1300
Date:	6/30/16	**Sampler:**	SWV
Weather:	Clear, 88° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-027	**PID Reading:**	2.1
Associated Site Feature:	Implement Ditch	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Black C-SAND w/some silt, trace gravel, loose, dry to moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-027-SO-0-0.5-Pb **Sample Time:** 1305

Date: 06/30/2016 **Sampler:** SW

Weather: Clear, 88°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-027 **PID Reading:** 2.1

Associated Site Feature: INFLUENT DITCH **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Black C. SAND w/ some silt, trace gravel, loose, dry to moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

MASS (UNSIEVED): ~~1,910 g~~ 1,760g (SW)

MASS (SIEVED): 41 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-027 SO-0.5-2	**Sample Time:**	1310
Date:	6/30/16	**Sampler:**	SW
Weather:	clear, 89°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-027	**PID Reading:**	1.8
Associated Site Feature:	Influent Ditch	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Black to dk (SW) ~~gray~~ brown f. SAND w/ some silt, trace gravel, ~~trace~~ roots, moist, soft, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-027 SO-10-12	**Sample Time:**	1330
Date:	6/30/16	**Sampler:**	SW
Weather:	clear 88°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-027	**PID Reading:**	0.5
Associated Site Feature:	Influent Ditch	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Lt. brown m. GRAVEL w/ some f. Sand, little clay, little cobbles, dense, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-028a-SO-0-0.5	**Sample Time:**	0930
Date:	6/30/16	**Sampler:**	AH
Weather:	Clear 85°F		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFmw-028a	**PID Reading:**	0.0
Associated Site Feature:	NE Percolation Pond	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND, some cobble little silt very moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-028a-SO-0-0.5-Pb **Sample Time:** 0935

Date: 6/30/16 **Sampler:** AH

Weather: Clear 85°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-028a **PID Reading:** 0.0

Associated Site Feature: NE Percolation Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations:

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead only (sieved)
mass weight - 2,403 g
Sieved weight = 43 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-028a-SO-~~0000~~ 0.5-2 **Sample Time:** 0940

Date: 6/30/16 **Sampler:** AH

Weather: Clear 85°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-028a **PID Reading:** 0.0

Associated Site Feature: NE Percolation Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some f-c Gravel little cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-028a-SO-4.5-6 **Sample Time:** 0945

Date: 6/30/16 **Sampler:** AH

Weather: Clear 85°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 4.5-6

Boring ID: CFMW-028a **PID Reading:** 0.0

Associated Site Feature: NE Percolation Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Black SILT, sludgy/greasy

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Additional sample outside of scope

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-028a-SO-10-12 **Sample Time:** 0950

Date: 6/30/16 **Sampler:** AH

Weather: clear 85°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-028a **PID Reading:** 0.0

Associated Site Feature: NE Percolation Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND some f-c gravel trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP19 @ 1300

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-028a-SO-48-53 **Sample Time:** 1100

Date: 6/30/16 **Sampler:** AH

Weather: Clear 85°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 48-53

Boring ID: CFMW-028a **PID Reading:** 0.0

Associated Site Feature: NE Percolation Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.00014002
Sample ID:	CFMW-029-SO-0-0.5	**Sample Time:**	1420
Date:	5/18/16	**Sampler:**	AH
Weather:	Clear 75°F		
Latitude:	TO BE SURVEYED	**Longitude:**	–
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-029	**PID Reading:**	0.3
Associated Site Feature:	East Percolation Pond	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown F-C SAND, some Ct Gravel, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-029-SO-0.5-2	**Sample Time:**	1425
Date:	5/18/16	**Sampler:**	AH
Weather:	Clear 75°		
Latitude:	TO BE SURVEYED ~~TO BE DETER~~	**Longitude:**	–
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-029	**PID Reading:**	0.3
Associated Site Feature:	East Percolation Pond	**Within Site Feature (Y/N):**	No
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND, some Ct Gravel; dry

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001.Y002

Sample ID: CFMW-029-SO-10-12 **Sample Time:** 1430

Date: 5/18/16 **Sampler:** AH

Weather: Clear 75°F

Latitude: TO BE SURVEYED **Longitude:** —

Coordinate system: MT State Plane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-029 **PID Reading:** 0.8

Associated Site Feature: East Percolation Pond **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown m-c+ SAND, some f-c Gravel trace f Sand, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-032a-SO-0-0.5 **Sample Time:** 0855

Date: 8/8/16 **Sampler:** AH

Weather: Clear 50°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-032a **PID Reading:** 0.0ppm

Associated Site Feature: Main Plant/Op-Grid **Within Site Feature (Y/N):** N / Y

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-m SAND some silt and organics (roots)

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-032a-SO-0-0.5 **Sample Time:** 0858

Date: 8/8/16 **Sampler:** AH

Weather: Clear 50°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-032a **PID Reading:** 0.0 ppm

Associated Site Feature: Main Plant/OP-Grid **Within Site Feature (Y/N):** N / Y

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-m SAND some silt and organics (roots)

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead only Sieved
mass weight: 1357g
Sieved weight: 270g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFmw-032a-so-0.5-2	**Sample Time:**	0900
Date:	8/8/16	**Sampler:**	AH
Weather:	Clear 50°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFmw-032a	**PID Reading:**	0.0 ppm
Associated Site Feature:	Main Plant/ op. Grid	**Within Site Feature (Y/N):**	N / Y

Grab [X] **Composite** [ ]

Visual Observations: Tan f-m SAND some silt little f-m Gravel trace c gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-032a-SO-10-12 **Sample Time:** 0910

Date: 8/8/16 **Sampler:** AH

Weather: Clear 50°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-032a **PID Reading:** 0.2 ppm

Associated Site Feature: Main Plant/Op-Grid **Within Site Feature (Y/N):** N / Y

Grab [X] **Composite** [ ]

Visual Observations: Brown/dark orange f-c SAND little f-m Gravel trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP @ 1300

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-032a-SO-43-48 **Sample Time:** 1020

Date: 8/8/16 **Sampler:** AH

Weather: Clear 70°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 43-48

Boring ID: CFMW-032a **PID Reading:** 0.0 ppm

Associated Site Feature: Main Plant / Op-Grid **Within Site Feature (Y/N):** N / Y

Grab [X] **Composite** [ ]

Visual Observations: Brown / tan f SAND and SILT, some high plast. clay and m-c sand trace f gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-032a-SO-65-66-GSA **Sample Time:** 1045

Date: 8/8/16 **Sampler:** AH

Weather: Clear 65°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 65-66

Boring ID: CFMW-032a **PID Reading:** 0.0 ppm

Associated Site Feature: MainPlant/Op-Grid **Within Site Feature (Y/N):** N / Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

First Aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-032a-SO-94-95-GSA	**Sample Time:**	1100
Date:	8/8/16	**Sampler:**	ATI
Weather:	Clear 65°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	94-95
Boring ID:	CFMW-032a	**PID Reading:**	0.0ppm
Associated Site Feature:	MainPlant/Op-Grid	**Within Site Feature (Y/N):**	N/Y
Grab	X	**Composite**	

Visual Observations: orange/reddish brown SILTY CLAY, some f sand little f Gravel trace m-c sand and m-c gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Confining Layer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-032a-SO-198-199-GSA **Sample Time:** 1300

Date: 8/9/16 **Sampler:** AH

Weather: Clear 70°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 198-199

Boring ID: CFMW-032a **PID Reading:** 0.0 ppm

Associated Site Feature: Main Plant/Op-Grnd **Within Site Feature (Y/N):** N / Y

Grab [x] **Composite** [ ]

Visual Observations: orange/reddish brown f-c(+) SAND some f(+)-m Gravel and Silt trace clay

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Second Aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-033-SO-0-0.5	**Sample Time:**	1100
Date:	7/01/16	**Sampler:**	SW
Weather:	clear, 86°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-033	**PID Reading:**	0.1
Associated Site Feature:	Raw Materials Loading Area	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: lt. brown to dk. brown f. SAND with little f. gravel, trace silt, moist, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-033-SO-0-0.5-Pb	**Sample Time:**	1105
Date:	07/01/16	**Sampler:**	SW
Weather:	clear, 86° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-033	**PID Reading:**	0.1
Associated Site Feature:	Raw Materials Loading Area	**Within Site Feature (Y/N):**	N
Grab	X	**Composite**	

Visual Observations: lt. brown to dk. brown f. SAND with little f. gravel, trace silt, moist, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL ~~Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

MASS (UNSIEVED): 2,340

MASS (SIEVED): 400 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-033-SO-0.5-2	**Sample Time:**	1110
Date:	7/01/2016	**Sampler:**	SW
Weather:	clear, 86° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-033	**PID Reading:**	0.4
Associated Site Feature:	Raw Materials Loading Area	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Dk. brown to gray f-m GRAVEL with some f-m sand, little silt, little cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-033-SO - 10-12	**Sample Time:**	1130
Date:	7/01/2016	**Sampler:**	SW
Weather:	clear, high 86°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-033	**PID Reading:**	0.3
Associated Site Feature:	Raw Materials Loading Area	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown m. SAND with some f-c gravel, little cobbles, dry to moist, trace crushed rock, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.000 1Y002
Sample ID:	CFMW-034-SO-0-0.5	**Sample Time:**	910
Date:	5/31/16	**Sampler:**	SW
Weather:	Clear, 60°F		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-034	**PID Reading:**	0.6
Associated Site Feature:	~~Paste Plant~~ Raw Materials Loading Area	**Within Site Feature (Y/N):**	

Grab [X] **Composite** [ ]

Visual Observations: Black f-m SAND w/ trace gravel, little cobbles, little silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-034-SO-0.5-2	**Sample Time:**	920
Date:	5/31/16	**Sampler:**	SW
Weather:	clear 60°F		
Latitude:	to be surveyed	**Longitude:**	–
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-034	**PID Reading:**	0.3
Associated Site Feature:	Raw Materials Loading	**Within Site Feature (Y/N):**	

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND w/ little m gravel, little cobbles, little crushed rock

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP @ 930

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001.4002

Sample ID: CFMW-034-SO-10-12

Sample Time: 940

Date: 5/31/16

Sampler: SW

Weather: Clear, 60° F

Latitude: to be surveyed

Longitude: –

Coordinate system: MT State Plane

Sample Interval (ft-bls): 10-12

Boring ID: CFMW-034

PID Reading: 0.1

Associated Site Feature: Raw Materials Loading Area

Within Site Feature (Y/N):

Grab [X]

Composite [ ]

Visual Observations: Brown f. SAND w/ little c. gravel trace cobbles, trace crushed rock

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-035-SO-0-0.5 **Sample Time:** 1100

Date: 06/01/16 **Sampler:** SW

Weather: Clear, 70° F

Latitude: To be surveyed **Longitude:** —

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-035 **PID Reading:** 2.2

Associated Site Feature: Raw Materials Loading **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown m-c SAND w/ trace gravel, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	~~X~~ SW
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP 11 @ 1105

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-035-SO-0.5-2	**Sample Time:**	1110
Date:	06/01/2016	**Sampler:**	SW
Weather:	Clear, 70 F		
Latitude:	To be surveyed	**Longitude:**	–
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-035	**PID Reading:**	0.2
Associated Site Feature:	Raw Materials Loading	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown m-c SAND, w little gravel (f-c), trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-035-SO-10-12	**Sample Time:**	1130
Date:	06/01/2016	**Sampler:**	SW
Weather:	clear, 70°F		
Latitude:	To be surveyed	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10 - 12
Boring ID:	CFMW-035	**PID Reading:**	0.1
Associated Site Feature:	Raw Materials Loading	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some f-c gravel, little cobbles, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-037-50-0-0.5 **Sample Time:** ~~PM~~ 1350 (SW)

Date: 06/24/16 **Sampler:** SW

Weather: rain, overcast, 50°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-037 **PID Reading:** 0.2

Associated Site Feature: Rectifier Yards **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dk. brown to gray m-c GRAVEL with some f-m sand, moist 40% recovery

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-037-SO-0.5-2	**Sample Time:**	1400
Date:	06/24/14	**Sampler:**	SVV
Weather:	rain, overcast, 50°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-037	**PID Reading:**	0.2
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: 40% Recovery, Brown f-m SAND w/ some f-m gravel, trace cobbles, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-037-SO-10-12	**Sample Time:**	1420
Date:	04/24/2016	**Sampler:**	SW
Weather:	rain, overcast, 50°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-037	**PID Reading:**	0.1
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: 2' recovery, Brown to dk. brown f-m SAND w/ some f-m gravel, trace cobbles, little silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-038-SO-0-0.5'	**Sample Time:**	1435
Date:	6/25/16	**Sampler:**	LJ
Weather:	CLOUDY 70°		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5'
Boring ID:	CFMW-038	**PID Reading:**	0.0
Associated Site Feature:	EAST RECTIFIER YARD	**Within Site Feature (Y/N):**	YES

Grab [X] **Composite** [ ]

Visual Observations: BROWN, COARSE SAND AND GRAVEL, MOIST, LOOSE

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-038-SO-0.0-0.5-PB	**Sample Time:**	1430
Date:	6/25/16	**Sampler:**	LJ
Weather:	CLOUDY 70°		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.0-0.5'
Boring ID:	CFMW-038	**PID Reading:**	0.0
Associated Site Feature:	EAST RECLAMATION YARD	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: BROWN, COARSE SAND AND GRAVEL, MOIST LOOSE

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEADS ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

1,170 grams

1,114 g after dry

[illegible]

[illegible] grams after sieve

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-038-SO-0.5-2'	**Sample Time:**	1440
Date:	6/25/16	**Sampler:**	LJ
Weather:	CLOUDY 70°		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	~~0-0.~~ 0.5-2'
Boring ID:	CFMW-038	**PID Reading:**	0.0
Associated Site Feature:	EAST RECTIFIER YARD	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: BROWN, COARSE SAND AND GRAVEL, MOIST LOOSE

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-038-SO-10-12'	**Sample Time:**	1445
Date:	6/25/16	**Sampler:**	LJ
Weather:	CLOUDY 70°		
Latitude:	TBS	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12'
Boring ID:	CFMW-038	**PID Reading:**	0.7
Associated Site Feature:	EAST RECTIFIER YARD	**Within Site Feature (Y/N):**	YES

Grab [✓] **Composite** [ ]

Visual Observations: BROWN, COARSE/ANGULAR GRAVEL, SOME SAND AND SILT, LITTLE COBBLES, MOIST LOOSE

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-040-SO-0-0.5	**Sample Time:**	1000
Date:	6/28/16	**Sampler:**	SVV
Weather:	clear; high 88°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-040	**PID Reading:**	0.1
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: DK brown f. SAND with some silt, some f-m gravel, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
~~Total Organic Carbon~~ DIOXINS/FURANS	X (SW)

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

-Surface gravel (red coarse gravel) removed before sample was collected).

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-040-SO-0-0.5-Pb **Sample Time:** 1005

Date: 6/22/16 **Sampler:** SW

Weather: clear, high 88°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-040 **PID Reading:** 0.1

Associated Site Feature: Rectifier Yards **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: DK. brown f. SAND w/ some silt, some f-m gravel, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	Y
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Unsieved mass: 1,594 g

Sieved mass: 69 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-040-SO-0.5-2	**Sample Time:**	1010
Date:	6/28/16	**Sampler:**	SW
Weather:	Clear, high 88°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-040	**PID Reading:**	0.2
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	Y
	Grab X	**Composite**	

Visual Observations: Brown f. SAND with some f-c gravel, little silt, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-040-SO-10-12	**Sample Time:**	1030
Date:	6/23/16	**Sampler:**	SW
Weather:	Clear, high 88°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-040	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-m SAND w/m some m-c gravel, little silt, trace cobbles more

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-042-SO-0 0.5 **Sample Time:** 1500

Date: 6/16/16 **Sampler:** SW

Weather: rain, hail, 60°

Latitude: To be surveyed **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-042 **PID Reading:** 0.0

Associated Site Feature: Main Plant/Rechfer Yards **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f. SAND w/ some silt, trace gravel, loose, trace grass/topsoil moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	✓
Soil TAL Metals 6010	✓
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieve sample collected

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-042-SO-0-0.5-Pb **Sample Time:** 1505

Date: 6/16/16 **Sampler:** SW

Weather: rain, hail 60°F

Latitude: To be surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-042 **PID Reading:** 0.0

Associated Site Feature: Rectifier Yards **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f. SAND w/ some silt, trace gravel, loose, trace grass/topsoil moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

- LEAD SIEVED SAMPLE ONLY-

unsieved sample: 1,393 g

sieved sample: 124 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-042-SC-0.5-2	**Sample Time:**	1510
Date:	6/16/16	**Sampler:**	SW
Weather:	rain, humid, 100°		
Latitude:	To be surveyed	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-042	**PID Reading:**	0.1
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-m SAND w/ some gravel, little cobbles, little silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP 16 @ 1520

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-042-SO-10-12 **Sample Time:** 1530

Date: 06/16/16 **Sampler:** SVV

Weather: rain, hail, 60°F

Latitude: To be surveyed **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-042 **PID Reading:** ~~0.9~~ 0.6 (SW)

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f. SAND & gravel, little cobbles. Little crushed rock chips

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-043-SO-0-0.5	**Sample Time:**	1400
Date:	6/15/16	**Sampler:**	SW
Weather:	Clear, 65°F		
Latitude:	To be surveyed	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-043	**PID Reading:**	1.2
Associated Site Feature:	West Pere Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown SAND (f-m) w/ some silt, little gravel, trace cobbles, trace topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW - 043 - SO - 0-0.5-Pb	**Sample Time:**	1400
Date:	06/15/16	**Sampler:**	SW
Weather:	clear, 65° F		
Latitude:	To be surveyed	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-043	**PID Reading:**	1.2
Associated Site Feature:	West Perc Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown SAND (f-m), some silt, little gravel, trace cobbles, trace topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

LEAD SIEVED SAMPLE ONLY

Weight pre-sieve (1330 g)

LEAD weight post-sieve = 82 g (SW)

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-043-SO-0.5-2	**Sample Time:**	1410
Date:	6/15/16	**Sampler:**	SW
Weather:	clear, 65° F		
Latitude:	To be surveyed	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-043	**PID Reading:**	~~0.4~~ SW 0.5
Associated Site Feature:	West Pere Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown SILT w/ some fine sand, little gravel, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-043-SO-10-12	**Sample Time:**	1430
Date:	6/15/16	**Sampler:**	SW
Weather:	clear, 65° F		
Latitude:	To be surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-043	**PID Reading:**	0-1
Associated Site Feature:	West Perc Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown GRAVEL (f-c) w/ some f-m sand, little cobbles, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-044a-SO-0-0.5 **Sample Time:** 0900

Date: 7/20/16 **Sampler:** AH

Weather: Clear 65°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-044a **PID Reading:** 0.0

Associated Site Feature: West Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-m GRAVEL, ~~f-m~~ some Gravel little silt and cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-044a-SO-0-0.5Pb	**Sample Time:**	0905
Date:	7/20/16	**Sampler:**	AH
Weather:	Clear 65°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-044a	**PID Reading:**	0.0
Associated Site Feature:	West Percolation Pond	**Within Site Feature (Y/N):**	NO - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-m GRAVEL, some c Gravel little silt and cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	~~X~~
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

lead sieved
mass weight - 2.298g
sieved weight - 66g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-044a-SO-0.5-2	**Sample Time:**	0910
Date:	7/20/16	**Sampler:**	AH
Weather:	Clear 70°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	~~0.5~~ 0.5-2
Boring ID:	CFMW-044a	**PID Reading:**	0.0
Associated Site Feature:	West Percolation Pond	**Within Site Feature (Y/N):**	No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-m GRAVEL some c Gravel little silt and cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-044a-SO-10-12 **Sample Time:** 0915

Date: 7/20/16 **Sampler:** AH

Weather: Clear 70°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-044a **PID Reading:** 0.0

Associated Site Feature: West Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-c GRAVEL, little silt and cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-044a-SO-49-54 **Sample Time:** 1130

Date: 7/20/16 **Sampler:** AH

Weather: Clear 75°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 49-54

Boring ID: CFMW-044a **PID Reading:** 0.0

Associated Site Feature: West Percolation Pond **Within Site Feature (Y/N):** No - SW corner

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-045a-SD-0-0.5 **Sample Time:** 1110

Date: 8/12/16 **Sampler:** AH

Weather: Clear 75°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-045a **PID Reading:** 0.0

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND and f GRAVEL, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-045a-SO-0.5-2 **Sample Time:** 1120

Date: 8/12/16 **Sampler:** AH

Weather: Clear 75°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-045a **PID Reading:** 0.0

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND and f GRAVEL, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-045a-SO-10-12 **Sample Time:** 1125

Date: 8/12/16 **Sampler:** AH

Weather: clear 75°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-045a **PID Reading:** 0.0

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** NO

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-m GRAVEL, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-045a-SO-86-91	**Sample Time:**	1445
Date:	8/12/16	**Sampler:**	AH
Weather:	Clear 80°		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	86-91
Boring ID:	CFMW-045a	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yard	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-045a-SO-95-96-GSA **Sample Time:** 1500

Date: 8/12/16 **Sampler:** AH

Weather: Clear 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 95-96

Boring ID: CFMW-045a **PID Reading:** 0.0

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

First Aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-045a-SO-281-282-GSA **Sample Time:** 0900

Date: 08/15/16 **Sampler:** AH

Weather: Clear 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** ~~[illegible]~~ 281-282

Boring ID: CFMW-045a **PID Reading:** 0.0

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** No

Grab [x] **Composite** [ ]

Visual Observations: Brown f(+)-c SAND, some silt, ~~high~~ low plast clay, little f-m Gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Confining conditions

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-047-SO-0-0.5 **Sample Time:** 1030

Date: 06/21/2016 Sampler: SW

Weather: rain, 50° F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **(ft-bls):** 0-0.5

Boring ID: CFMW-047 PID Reading 0.1

Associated Site Feature: Rectifier Yards **Within Site Feature** N

Grab [X] Composite [ ]

Visual Observations: Brown f-m SAND, some f-c gravel, little silt, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis			Quality Control (QC) sample	
VOC	Soil TCL VOCS 8260	~~X~~ SW	Field duplicate	
SVOC	Soil TCL SVOCs 8270	X	Matrix Spike	
METALS	Soil TAL METALS 6010	X		
PCBs	Soil PCBs	X		
Pesticides	Soil TCL Pesticides 8081	X		
Total Cyanide	Soil Total Cyanide 9012	X	Lead Sample collected	
Fluoride	Soil Fluoride 9056	X	@ 1035 - Sieved	
	Soil			
Grain Size Analysis/ bulk density/ moisture content				
Total Organic Carbon				

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-047-SO-0-0.5-Pb **Sample Time:** 1035

Date: 6/21/16 **Sampler:** SW

Weather: rain 50°F

Latitude: TBS **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-047 **PID Reading:** 0.1

Associated Site Feature: Rectifier Yard **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: brown f-m SAND some f-c gravel little silt trace cobble moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved:

mass weight: NA

sieved weight: NA

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-047-50-0.5-2 **Sample Time:** 1040

Date: 06/21/16 Sampler: SW

Weather: rain, 50°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-047 PID Reading: 0.2

~~Associated Site Feature~~: Rectifier Yards **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-m SAND, with some f-c gravel, some silt

Laboratory Name: TestAmerica

Analysis		
VOC	Soil TCL VOCs 8260	X
SVOC	Soil TCL SVOCs 8270	X
METALS	Soil TAL METALS 6010B	X
PCBs	Soil TCL PCBs 8082	X
Pesticides	Soil TCL Pesticides 8081	
Total Cyanide	Soil Total Cyanide 9012	X
Fluoride	Soil Fluoride 300	X
	Soil PCDD/ PCDF 8290	
	Grain Size Analysis/ bulk density/ moisture content	
	Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-047-S0-10-12 **Sample Time:** 1100

Date: 04/21/16 **Sampler:** SW

Weather: Rain, 50°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate System: MT State Plane **Sample Interval (ft bgs):** 10-12

Boring ID: CFMW-047 **PID Reading:** 0.4

Associated Site Feature: Rectifier Yards **Within Site Feature (Y/N):** N

GRAB [X]

Visual Observations: Brown f-m SAND, some f-c Gravel, trace silt, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis		
VOC	Soil TCL VOCs 8260	X
SVOC	Soil TCL SVOCs 8270	X
METALS	Soil TAL Metals 6010	X
PCBs	Soil TCL PCBs 8082	X
Pesticides	Soil TCL Pesticides 8081	
Total cyanide	Soil Total Cyanide 9012	X
Fluoride	Soil Fluoride 300	X
	Soil PCDD/PCDF 8290	
	Grain Size Analysis/ bulk density/ moisture content	
	Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-049a-SO-0-0.5	**Sample Time:**	1505
Date:	8/20/16	**Sampler:**	SW
Weather:	Clear, 85°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-049a	**PID Reading:**	0.1
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-m SAND with little silt, little m-c gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-049a-SO-0-0.5 Pb	**Sample Time:**	1510
Date:	8/20/16	**Sampler:**	SW
Weather:	clear, 85°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-049a	**PID Reading:**	
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab X	**Composite**	

Visual Observations: Dark brown f-m SAND w little silt, little m-c gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEADONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass (unsieved): 1,537 g

mass (sieved): 97 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-049a-S0-0.5-2	**Sample Time:**	1515
Date:	8/20/16	**Sampler:**	SW
Weather:	clear, 85°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-049a	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown f. SAND with little f. gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP 23 collected [CFMW-DUP23-S0] @ 1520

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-049a-SO-10-12	**Sample Time:**	1530
Date:	8/20/16	**Sampler:**	SW
Weather:	clear, 85°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-049a	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown m-c GRAVEL with some m. sand, little cobbles, trace clay, moist, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-049a-SO-112-117	**Sample Time:**	1040
Date:	8/22/16	**Sampler:**	SW
Weather:	mostly cloudy, 65°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	112-117
Boring ID:	CFMW-049a	**PID Reading:**	0.5
Associated Site Feature:	Rechfer Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-m GRAVEL with f SAND, little cobbles, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-050-SO-0-0.5	**Sample Time:**	1400
Date:	06/22/16	**Sampler:**	SW
Weather:	Clear, 75°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-050	**PID Reading:**	1.7
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab ☐	**Composite** ☐	

Visual Observations: Dk. brown f-m SAND w/ some silt, little f. gravel, little topsoil, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead Sample collected @ 1405

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-050-SD-0-0.5-Pb	**Sample Time:**	1405
Date:	06/22/16	**Sampler:**	SW
Weather:	Clear, 75° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-050	**PID Reading:**	1.7
Associated Site Feature:	Rechfer Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: DK brown f-m SAND with some silt, little f. gravel, little topsoil, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead Sieved Sample

Mass: 1,212 g

Sieved mass: 144 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-050-SO-0.5-2	**Sample Time:**	1410
Date:	06/22/16	**Sampler:**	SW
Weather:	Clear, 75° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-050	**PID Reading:**	0.5
Associated Site Feature:	Rectifier Yard	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: DK. brown f-m SAND with some Silt, f-c gravel, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

CFMW-DUP 17-SO @ 1420

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-050-SO-10-12	**Sample Time:**	1430
Date:	06/22/16	**Sampler:**	SW
Weather:	Clear 75° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-050	**PID Reading:**	2.0
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Gray to brown f-m GRAVEL with some f-m sand, some cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-053a-SO-0-0.5 **Sample Time:** 1405

Date: 8/17/16 **Sampler:** AH

Weather: Clear 85°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-053a **PID Reading:** 0.0 ppm

Associated Site Feature: Rod Mill **Within Site Feature (Y/N):** No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND and f-m GRAVEL, some c Gravel trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-053a-SO-0-0.5Pb **Sample Time:** 1410

Date: 8/17/16 **Sampler:** AH

Weather: Clear 85°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-053a **PID Reading:** 0.0 ppm

Associated Site Feature: Rod Mill **Within Site Feature (Y/N):** No

Grab [x] **Composite** [ ]

Visual Observations: Dark brown f-c SAND and f-m GRAVEL some (gravel) trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil Lead only ~~TAL Metals 6010~~	x
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead only sieved
mass weight - 1612 g
Sieved weight - 338 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-053a-SO-0.5-2	**Sample Time:**	1415
Date:	8/17/16	**Sampler:**	AH
Weather:	Clear 85°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 - 2
Boring ID:	CFMW-053a	**PID Reading:**	0.0 ppm
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	No

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND and f-m GRAVEL, some c Gravel trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP22 @1200

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-053a-SO-10-12	**Sample Time:**	1420
Date:	8/17/16	**Sampler:**	AH
Weather:	Clear 85°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-053a	**PID Reading:**	0.0ppm
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	No

Grab [x] **Composite** [ ]

Visual Observations: Brown m GRAVEL, some f and c Gravel little f-c Sand trace silt and cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	x
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	x

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	x
Matrix Spike Duplicate	x

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-053a-SO-59-64 **Sample Time:** 0845

Date: 8/18/17 **Sampler:** AH

Weather: WINDY, cloudy 70°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 59-64

Boring ID: CFMW-053a ~~MSOM~~ **PID Reading:** 0.0 ppm

Associated Site Feature: Rod Mill **Within Site Feature (Y/N):** No

Grab [x] **Composite** [ ]

Visual Observations: Brown f-m SAND trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	x

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-054-SO-0-0.5	**Sample Time:**	0900
Date:	06/20/2016	**Sampler:**	SW
Weather:	clear, high 75°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-054	**PID Reading:**	0.0
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab X	**Composite**	

Visual Observations: Dark brown f-m SAND, with some m gravel, trace cobbles, trace silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-054-SO-0.5-2	**Sample Time:**	0910
Date:	06/20/2016	**Sampler:**	SW
Weather:	Clear, high 75°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-054	**PID Reading:**	0.4
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-m SAND w/ some m gravel, trace cobbles, trace silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-054-S0-10-12	**Sample Time:**	0930
Date:	06/20/2012	**Sampler:**	SVV
Weather:	clear, high 75°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-054	**PID Reading:**	3.0
Associated Site Feature:	Former Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Gray f. SAND, with crushed rock, little gravel, little cobbles, dry, loose.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-056a-SO-0-0.5 **Sample Time:** 1500

Date: 7/15/16 **Sampler:** AH

Weather: Clear 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0 - 0.5

Boring ID: CFMW-056a **PID Reading:** 0.0

Associated Site Feature: Background Area **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f(+)-c SAND little silt and organics trace f gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP20 @ 1200

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-056a-SO-0-0.5Pb **Sample Time:** 1505

Date: 7/15/16 **Sampler:** AH

Weather: clear 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-056a **PID Reading:** 0

Associated Site Feature: Background Area **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f(1)-c SAND little silt and organics trace f Gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	x
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved

Mass weight: 796g

Sieved weight: 214g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-056a-SO-0.5-2 **Sample Time:** 1510

Date: 7/15/16 **Sampler:** AH

Weather: Clear 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-056a **PID Reading:** 0.1

Associated Site Feature: Background area **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown f(+)-c SAND little SILT trace organics and f gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-056a-SO-10-12 **Sample Time:** 1520

Date: 7/15/16 **Sampler:** AH

Weather: clear 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-056a **PID Reading:** 0.0

Associated Site Feature: Background Area **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c (+) SAND some f-c Gravel (rounded)

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-056a-SO-37-42	**Sample Time:**	1600
Date:	7/15/16	**Sampler:**	AH
Weather:	clear 80°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	37-42
Boring ID:	CFMW-056a	**PID Reading:**	0.0
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-057a-SO-0-0.5 **Sample Time:** 1400

Date: 7/27/16 **Sampler:** AH

Weather: Clear high 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0 - 0.5

Boring ID: CFMW-057a **PID Reading:** 0.8

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No- eastern edge

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-m SAND trace silt and organics

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-057a-SO-0.5-2 **Sample Time:** 1405

Date: 7/27/16 **Sampler:** AH

Weather: clear high 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** ~~0.5~~ 0.5-2

Boring ID: CFMW-057a **PID Reading:** 0.6

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No - eastern edge

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-057a-SO-10-12	**Sample Time:**	1410
Date:	7/27/16	**Sampler:**	AH
Weather:	clear 80°s high		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-057a	**PID Reading:**	0.0
Associated Site Feature:	Aluminum City	**Within Site Feature (Y/N):**	No - eastern edge
Grab	X	**Composite**	

Visual Observations: Brown ~~M Gravel~~ f-c (+) SAND and fm GRAVEL little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-057a-SO-30-35	**Sample Time:**	1430
Date:	7/27/16	**Sampler:**	AH
Weather:	Clear high 80°s		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	30-35
Boring ID:	CFMW-057a	**PID Reading:**	0.0
Associated Site Feature:	Aluminum City	**Within Site Feature (Y/N):**	No - eastern edge

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-059a-SO-0-0.5	**Sample Time:**	1530
Date:	7/22/16	**Sampler:**	AH
Weather:	cloudy, high winds 80°		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-059a	**PID Reading:**	0.0
Associated Site Feature:	Aluminum City	**Within Site Feature (Y/N):**	No - along train

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, little silt and f-m Gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-059a-SO-0-0.5Pb **Sample Time:** 1535

Date: 7/22/16 **Sampler:** AH

Weather: cloudy, high winds 80°

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-059a **PID Reading:** 0.0

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No - along train

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND little silt and f-m Gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	x
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead only (sieved)
mass weight - 2.346g
sieved weight - 98g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-059a-SO-0.5-2	**Sample Time:**	1540
Date:	7/22/16	**Sampler:**	AH
Weather:	cloudy, high winds 80°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-059a	**PID Reading:**	0.0
Associated Site Feature:	Aluminum City	**Within Site Feature (Y/N):**	No-along train

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-m GRAVEL

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-059a-SO-10-12 **Sample Time:** 1545

Date: 7/22/16 **Sampler:** AH

Weather: cloudy, high winds 80°

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-059a **PID Reading:** 0.0

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No - along train

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND and f-c GRAVEL trace cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-059a-SO-79-84 **Sample Time:** 1015

Date: 7/23/16 **Sampler:** AH

Weather: Cloudy 70°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 79-84

Boring ID: CFMW-059a **PID Reading:** 0.0

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No - along train

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-059a-50-85-86-GSA **Sample Time:** 1030

Date: 7/23/16 **Sampler:** AH

Weather: cloudy, high winds 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 85-86

Boring ID: CFMW-059a **PID Reading:** 0.0

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No - near train

Grab [X] **Composite** [ ]

Visual Observations: Brown f SAND some m Sand little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

First Aquifer

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-059a-SO-150-151-GSA	**Sample Time:**	1330
Date:	7/23/16	**Sampler:**	AH
Weather:	cloudy, high winds 80°F		
Latitude:	TBD	**Longitude:**	TBD
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	150-151
Boring ID:	CFMW-059a	**PID Reading:**	0.0
Associated Site Feature:	Aluminum City	**Within Site Feature (Y/N):**	NO - near train
Grab	X	**Composite**	

Visual Observations: ~~Brown/light grey f SAND and SILT trace clay~~ light grey/light brown f SAND and SILT some clay (high plast) little f Gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

low permiability lense

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-059a-SO-160-161-GSA **Sample Time:** 1400

Date: 7/23/16 **Sampler:** AH

Weather: cloudy, high winds 80°F

Latitude: TBD **Longitude:** TBD

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 160-161

Boring ID: CFMW-059a **PID Reading:** 0.0

Associated Site Feature: Aluminum City **Within Site Feature (Y/N):** No - near train

Grab [X] **Composite** [ ]

Visual Observations: Brown CSAND little silt and f-m sand trace f-c Gravel and cobble

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Second more permiable area

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-061-SO-0-0.5 **Sample Time:** 1330

Date: 07/12/16 **Sampler:** SW

Weather: partly cloudy, 65°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFMW-061 **PID Reading:** 0.6

Associated Site Feature: South Perolation Ponds **Within Site Feature (Y/N):**

Grab ☐ **Composite** ☐

Visual Observations: Dark brown f. SAND with some f-c gravel, little cobbles, trace silt, loose moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-0101-SO-0-0.5-PB	**Sample Time:**	1335
Date:	07/12/16	**Sampler:**	SW
Weather:	partly cloudy, 65°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-0101	**PID Reading:**	0.6
Associated Site Feature:	SW ~~E~~ South Percolation Ponds	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f. SAND with some f-c gravel, little cobbles, trace silt, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL ~~Metals 6010~~ LEAD ONLY (SIEVED)	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass (unsieved) 1,953 g

mass (sieved) 169 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-0101-SO-0.5-2	**Sample Time:**	1340
Date:	07/12/16	**Sampler:**	SW
Weather:	partly cloudy, 85°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFMW-0101	**PID Reading:**	1.3
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown f. SAND with some f-c gravel, trace silt, little cobbles, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-061-SO-10-12 **Sample Time:** 1400

Date: 07/12/2016 **Sampler:** SW

Weather: partly cloudy, 65°F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFMW-061 **PID Reading:** 0.6

Associated Site Feature: South Percolation Ponds **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c GRAVEL with some f sand, little cobbles, trace silt, dense to loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-004-SO-0-0.5	**Sample Time:**	1100
Date:	7/11/14	**Sampler:**	SW
Weather:	overcast, 60°F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-004	**PID Reading:**	2.5
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Dk. brown f. SAND, little silt, trace f. gravel, trace cobbles, mast, trace wood, roots

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-064-SO-0-0.5-Pb	**Sample Time:**	1105
Date:	07/11/10	**Sampler:**	SW
Weather:	overcast, 60° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFMW-064	**PID Reading:**	2.5
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dk brown f. SAND, little silt, trace f. gravel, trace pebbles, mo. & trace wood, trace roots

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ LEAD ONLY	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass (unsieved): 1,616 g

mass (sieved): 656 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFMW-064-SO-0.5-2 **Sample Time:** 1110

Date: 07/11/16 **Sampler:** SW

Weather: overcast, 60 °F

Latitude: To Be Surveyed (TBS) **Longitude:** TBS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFMW-064 **PID Reading:** 0.4

Associated Site Feature: South Percolation Ponds **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Light brown f. SAND, trace silt, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFMW-004-SO-10-12	**Sample Time:**	1130
Date:	07/11/10	**Sampler:**	SW
Weather:	overcast, 60° F		
Latitude:	To Be Surveyed (TBS)	**Longitude:**	TBS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFMW-004	**PID Reading:**	1.6
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown f. SAND, little f-m gravel, trace cobbles, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-001-SO-0-0.5	Sample Time:	1140
Date:	5-25-16	Sampler:	GD
Weather:	Overcast 55°F		
Latitude:	1546803.694648	Longitude:	843205.840587
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-001	PID Reading:	1.9 ppm
Associated Site Feature:	West landfill	Within Site Feature (Y/N):	N
	Grab [X]	Composite	[ ]
Visual Observations:	Dark brown to black Loam, trace gravel, trace roots; moist		
Laboratory Name:	Test America		

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-001-SO-0.5-2	Sample Time:	1145
Date:	5-25-16	Sampler:	GD
Weather:	Overcast 55°F		
Latitude:	1546803.694648	Longitude:	843205.840587
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-001	PID Reading:	1.1 ppm
Associated Site Feature:	West Landfill	Within Site Feature (Y/N):	N

Grab [X] Composite [ ]

Visual Observations: Brown SAND f-c(+) some gravel, trace silt; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-001-SO-10-12	Sample Time:	1215
Date:	5-25-16	Sampler:	CD
Weather:	Overcast 55°F		
Latitude:	1546803.694648	Longitude:	843205.840587
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-001	PID Reading:	1.2 ppm
Associated Site Feature:	West landfill	Within Site Feature (Y/N):	N
	Grab [X]	Composite [ ]	

Visual Observations: Brown Gravel and sand, trace silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-002-SO-0-0.5	Sample Time:	1011
Date:	5-25-16	Sampler:	GD
Weather:	Overcast 50°F		
Latitude:	1546459.175897	Longitude:	843047.308249
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-002	PID Reading:	0.0 ppm
Associated Site Feature:	West Landfill	Within Site Feature (Y/N):	N

Grab [X] Composite [ ]

Visual Observations: Brown, silt some sand, little gravel, trace roots, wood fragment; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.00014002
Sample ID:	CFSB-002-SO-0.5-2	Sample Time:	1015
Date:	5-25-16	Sampler:	GD
Weather:	Overcast 50°F		
Latitude:	1546459.175897	Longitude:	843047.308249
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-002	PID Reading:	1.6 ppm
Associated Site Feature:	West Landfill	Within Site Feature (Y/N):	N
Grab	X	Composite	

Visual Observations: Brown Sand f-c, some gravel, some silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-002-SD-10-12

Sample Time: 1045

Date: 5-25-16

Sampler: GD

Weather: Overcast 50°F

Latitude: 1546459.175897

Longitude: 843047.308249

Coordinate system: MT State Plan

Sample Interval (ft-bls): 10-12

Boring ID: CFSB-002

PID Reading: 0.2 ppm

Associated Site Feature: West Landfill

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Brown GRAVEL and sand; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-003-SO-0-0.5 ~~CFSB-001-SO-0-0.5~~ GD	Sample Time:	1314
Date:	5-25-16	Sampler:	GD
Weather:	Partly cloudy 60°F		
Latitude:	1546443.911115	Longitude:	843895.373895
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-003	PID Reading:	2.1 ppm
Associated Site Feature:	West landfill	Within Site Feature (Y/N):	N
	Grab [X]	Composite	[ ]
Visual Observations:	Dark brown Loam little gravel, 3 inch depth over brown Sand and gravel, trace silt; moist		
Laboratory Name:	Test America		

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~/~~ AH
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-003-SO-0.5-2	Sample Time:	1325
Date:	5-25-16	Sampler:	GD
Weather:	Partly cloudy 60°F		
Latitude:	1546443.911115	Longitude:	843895.373895
Coordinate system:	MT state Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-003	PID Reading:	3.9 PPM
Associated Site Feature:	West landfill	Within Site Feature (Y/N):	N

Grab [X] Composite [ ]

Visual Observations: Brown Sand some gravel, trace silts moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.00014002
Sample ID:	CFSB-003-SO-10-12	Sample Time:	1355
Date:	5-25-16	Sampler:	GD
Weather:	Partly Cloudy 60°F		
Latitude:	1546443.911115	Longitude:	843895.373895
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-003	PID Reading:	8.9 PPM
Associated Site Feature:	West Landfill	Within Site Feature (Y/N):	N
	Grab [X]	Composite [ ]	

Visual Observations: Brown SAND f-c(+), trace silt, trace gravel; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-004-SO-0-0.5

Sample Time: 0823

Date: 5-25-16

Sampler: GD

Weather: Partly cloudy 41°F

Latitude: 1545754.545646

Longitude: ~~840~~ GD 843072.245130

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0 - 0.5

Boring ID: CFSB - 004

PID Reading: 0.9 ppm

Associated Site Feature: Former drum storage area

Within Site Feature (Y/N): ~~GD-4~~ N

Grab [X]

Composite [ ]

Visual Observations: Brown to black, SAND f-c and gravel, trace fine roots, little black carbon material, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved ~200' south of original location per Roux (Amy) instructions.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-004-SO-0.5-2	Sample Time:	0832
Date:	5-25-16	Sampler:	GD
Weather:	Partly cloudy 41°F		
Latitude:	1545754.545646	Longitude:	843072.245130
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-004	PID Reading:	4.5 ppm
Associated Site Feature:	Former drum storage area	Within Site Feature (Y/N):	~~Y~~ GD N
	Grab [X]	Composite [ ]	

Visual Observations: Brown to black, SAND f-c and gravel, trace fine roots, little black carbon material, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ (A)
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved ~200' South of original location per Roux (Amy) instructions.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-004-SO-10-12

Sample Time: 0905

Date: 5-25-16

Sampler: GD

Weather: Partly cloudy 41°F

Latitude: 1545754.545646

Longitude: 843072.245130

Coordinate system: MT state Plane

Sample Interval (ft-bls): 10-12

Boring ID: CFSB-004

PID Reading: 0.0 ppm

Associated Site Feature: Former drum storage area

Within Site Feature (Y/N): ~~Y~~ GD N

Grab [X]

Composite [ ]

Visual Observations: Brown, SAND fine-coarse(+) and gravel; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved ~200' south of original location per Roux (Amy) instructions.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-005-SO-0-0.5	Sample Time:	1435
Date:	5-25-16	Sampler:	GD
Weather:	Clear 65°F		
Latitude:	1546186.271823	Longitude:	843905.581894
Coordinate system:	MT State Plan	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-005	PID Reading:	1.9 PPM
Associated Site Feature:	Wet Scrubber Sludge Pond	Within Site Feature (Y/N):	N

Grab [X] Composite [ ]

Visual Observations: Dark brown Loam little gravel; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CF SB-005-SO-0.5-2

Sample Time: 1445

Date: 5-25-16

Sampler: GD

Weather: Clear 65°F

Latitude: 1546186.271823

Longitude: 843905.581894

Coordinate system: MT state Plane

Sample Interval (ft-bls): 0.5-2

Boring ID: CFSB-005

PID Reading: 2.3 ppm

Associated Site Feature: Wet Scrubber Sludge Pond

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Brown GRAVEL little Sand trace silt; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAc	Project Number:	2476.0001Y002
Sample ID:	CFSB-005-SO-10-12	Sample Time:	1515
Date:	5-25-16	Sampler:	GD
Weather:	Clear 65°F		
Latitude:	1546186.271823	Longitude:	843905.581894
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-005	PID Reading:	1.1 ppm
Associated Site Feature:	Wet Scrubber Sludge Pond	Within Site Feature (Y/N):	N
	Grab [X]	Composite	[ ]

Visual Observations: Brown Gravel and sand some silt, moist to wet

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-006-SO-0-0.5 **Sample Time:** 1540

Date: 5/23/16 **Sampler:** SW

Weather: Rain, ~45°

Latitude: 844548.7953 **Longitude:** 1546144.5346

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-006 **PID Reading:** 0.0

Associated Site Feature: ~~S.~~ N (SW) Leachate Ponds **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f-c SAND w/ some gravel, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-006-SO-05-2	**Sample Time:**	1545
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844548.7953	**Longitude:**	1546144.5346
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-006	**PID Reading:**	0.0
Associated Site Feature:	N. Leachate Pond	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown to gray f-c SAND w/ some gravel, little silt + trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-006-SO-10-12	**Sample Time:**	1600
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844548.7953	**Longitude:**	1546144.5346
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-006	**PID Reading:**	0.0
Associated Site Feature:	N. Leachate Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some gravel, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-007-SO-0-0.5	Sample Time:	1550
Date:	5-25-16	Sampler:	GD
Weather:	Clear 70°F		
Latitude:	1545592.351309	Longitude:	843559.289166
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5'
Boring ID:	CFSB-007	PID Reading:	6.3 PPM
Associated Site Feature:	Wet Scrubber Sludge Pond	Within Site Feature (Y/N):	N
	Grab [X]	Composite [ ]	

Visual Observations: Brown Gravel and sand little silt; moist to wet trace roots and wood fragments

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and DEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-002-SO-0.5-2

Sample Time: 1605

Date: 5-25-16

Sampler: GD

Weather: Clear 70°F

Latitude: 1545592.351309

Longitude: 843559.289166

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0.5-2

Boring ID: CFSB-002

PID Reading: 1.7 PPM

Associated Site Feature: Wet Scrubber Sludge Pond

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Brown Gravel and sand little silt ~~grading into~~ GD ~~brown SAND and silt~~; Moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-007-SO-10-12

Sample Time: 1630

Date: 5-25-16

Sampler: GD

Weather: Clear 70°F

Latitude: 1545592.351309

Longitude: 843559.289166

Coordinate system: MT State Plane

Sample Interval (ft-bls): 10-12

Boring ID: CFSB-007

PID Reading: 4.2 PPM

Associated Site Feature: Wet Scrubber Sludge Pond

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Brown Gravel and sand trace silt; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-008-SO-0-0.5	**Sample Time:**	1500
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844682.54257	**Longitude:**	154 5581.1930
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-008	**PID Reading:**	0.0
Associated Site Feature:	East Landfill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND w/ some silt, little gravel, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-008-SO-0.5-2	**Sample Time:**	1515
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844682.5425	**Longitude:**	1545581.1930
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-008	**PID Reading:**	0.0
Associated Site Feature:	S. Leachate Pond	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: brown f-m SAND w/ some silt, little gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

CFSB - DUP4-SO
taken @ 1520

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-008-SO-10-12	**Sample Time:**	~~1510~~ SW 1530
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844682.5425	**Longitude:**	1545581.1936
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-008	**PID Reading:**	0.0
Associated Site Feature:	S. Leachate Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-m SAND w/ some silt, little gravel, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-009-SO-0-0.5	**Sample Time:**	1350
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844886.0930	**Longitude:**	1545311.4371
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-009	**PID Reading:**	0.1
Associated Site Feature:	~~East~~ South Leachate Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Dark brown sandy SILT, some gravel, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-009-SO-0.5-2	**Sample Time:**	1400
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844886.0930	**Longitude:**	1545311.4371
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-009	**PID Reading:**	0.0
Associated Site Feature:	South leachate Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some gravel, little silt, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-009-SO-10-12	**Sample Time:**	1420
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	844886.0930	**Longitude:**	1545311.4371
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-009	**PID Reading:**	0.0
Associated Site Feature:	South Leachate Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Black SILT w/ gravel, wet loose/soft

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-010-SO-0.5-2	**Sample Time:**	1510
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 46F		
Latitude:	843161.975540	**Longitude:**	154434.965279
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-010	**PID Reading:**	0.0 ppm
Associated Site Feature:	Fueling area	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown, sand and gravel, trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-010-50-10-12	**Sample Time:**	1525
Date:	5-21-16	**Sampler:**	Mason
Weather:	windy cloudy 46F		
Latitude:	843161.975540	**Longitude:**	1544344.965279
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-010	**PID Reading:**	—
Associated Site Feature:	Fueling area	**Within Site Feature (Y/N):**	
Grab	✓	**Composite**	

Visual Observations: Brown SAND f-m+ and gravel trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-011-50-0-0.5	**Sample Time:**	1320
Date:	5-19-16	**Sampler:**	MASON
Weather:	overcast 59F		
Latitude:	841399.945984	**Longitude:**	1545858.889074
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-011	**PID Reading:**	0.2 ppm
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N
	Grab ✓	**Composite** ☐	

Visual Observations: loam topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-011-50-0.5-2	**Sample Time:**	1330
Date:	5-19-16	**Sampler:**	MASON
Weather:	overcast 59F		
Latitude:	—	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-011	**PID Reading:**	4.6
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N
	Grab ✓	**Composite** ☐	

Visual Observations: gravelly loam

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	✓
Matrix Spike Duplicate	✓

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-011-50-10-12	**Sample Time:**	1355
Date:	5-19-16	**Sampler:**	MASON
Weather:	overcast 59F		
Latitude:	—	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-011	**PID Reading:**	—
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N
	Grab ✓	**Composite**	

Visual Observations: gravel with sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-012-SO-0.5-2	**Sample Time:**	1530
Date:	5/28/16	**Sampler:**	GD
Weather:	Clear 70°		
Latitude:	843248.9220	**Longitude:**	1544418.6062
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-012	**PID Reading:**	10.4
Associated Site Feature:	Fueling Area / UST	**Within Site Feature (Y/N):**	Yes
Grab	X	**Composite**	

Visual Observations: Brown GRAVEL, some ~~sa~~ f-m sand; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-012-SO-10-12	**Sample Time:**	1545
Date:	5/28/16	**Sampler:**	GD
Weather:	Clear 70°		
Latitude:	843248.9220	**Longitude:**	1544418.6062
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-012	**PID Reading:**	4.6
Associated Site Feature:	Fueling Area/UST	**Within Site Feature (Y/N):**	Yes
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown GRAVEL, some f-m sand; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-013-50-0-0.5	**Sample Time:**	1505
Date:	5-19-16	**Sampler:**	MASON
Weather:	lt. rain 60F		
Latitude:	840897.690682	**Longitude:**	1545559.950614
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-013	**PID Reading:**	0.0
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N

Grab ✓ **Composite** ☐

Visual Observations: loam topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-013-50-0.5-2	**Sample Time:**	1510
Date:	5-19-16	**Sampler:**	MASON
Weather:	lt. rain 60F		
Latitude:	840897.690682	**Longitude:**	1545559.950614
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 - 2
Boring ID:	CFSB-13	**PID Reading:**	0.0 ppm
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N
	Grab ✓	**Composite**	

Visual Observations: loam soil w/ gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-013-SO-10-12	**Sample Time:**	~~1525~~ 1530
Date:	5-19-16	**Sampler:**	MASON
Weather:	light rain, 59F		
Latitude:	840897.690682	**Longitude:**	1545559.950614
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-013	**PID Reading:**	0.0 ppm
Associated Site Feature:	NW Perc Pond	**Within Site Feature (Y/N):**	N
	Grab ☑	**Composite** ☐	

Visual Observations: gravel with sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-014-SO-0.0-0.5 **Sample Time:** 9:00

Date: 6/2/2016 **Sampler:** CAF

Weather: Overcast 64°

Latitude: 1545656.840544 **Longitude:** 841258.282510

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-014 **PID Reading:** 0.0

Associated Site Feature: percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: 2" Black silt overlying Brown f-c Sand and gravel moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Surface - Black silt with gravel + cobbles + sparse vegetation

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-014 - SO - 0.5 - 2.0 **Sample Time:** 9:12

Date: 6/2/2016 **Sampler:** CM

Weather: Overcast 64°

Latitude: 1545656.8405 4433 **Longitude:** 841258.282510

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2.0

Boring ID: CFSB-014 **PID Reading:** 8.4

Associated Site Feature: Percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and Sand f-c, some cobbles, trace silt moist to wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Surface - Black silt with gravel and cobbles sparse vegetation

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-014-SO-10-12	**Sample Time:**	9:55
Date:	6/2/2016	**Sampler:**	CM
Weather:	Overcast 64°		
Latitude:	1545656.8405433	**Longitude:**	841258.282570
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-014	**PID Reading:**	0.00
Associated Site Feature:	Percolation Pond	**Within Site Feature (Y/N):**	Y
	Grab X	**Composite**	

Visual Observations: Tan silt w fn(+)-cr SAND, little fine-cr gravel moist (Till)

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Surface - Black Silt w gravel + cobbles, sparse vegetation

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-016-SO-0.0-0.5 **Sample Time:** 10:40

Date: 6/2/2016 **Sampler:** CA

Weather: Overcast 66° light rain

Latitude: 154344.764506 **Longitude:** 841312.722484

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-016 **PID Reading:** 8.8

Associated Site Feature: percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Black Silt, overlying brown fine Sand + Gravel wet.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved boring ≈ 30' south due to ≈ 10" of standing water

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-016-SO-0.5-2.0 **Sample Time:** 10:50

Date: 6/2/2016 **Sampler:** CMT

Weather: Overcast 66 light Rain

Latitude: 154344.769506 **Longitude:** 841311.722484

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2.0

Boring ID: CFSB-016 **PID Reading:** 7.3

Associated Site Feature: Percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Black silt, overlying Brown f-c Sand + Gravel over tan/brown fine Sand + Gravel wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

move boring ≈ 30' south due to ≈ 10" of standing water

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-016-SO-10-12 **Sample Time:** 11:45

Date: 6/2/2016 **Sampler:** CA

Weather: Overcast 66°

Latitude: 154344.764506 **Longitude:** 841311.722484

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFSB-016 **PID Reading:** 0.0

Associated Site Feature: Percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Silt tan some fine sand, little fine gravel and clay moist (7.5YR

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Move boring ≈ 30' south due to ≈ 10' of standing water

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-019-SO-0-0.5	**Sample Time:**	1015
Date:	6/4/16	**Sampler:**	AH
Weather:	Clear 75°		
Latitude:	841941.4647	**Longitude:**	1545315.8893
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-019	**PID Reading:**	0.0
Associated Site Feature:	Overflow Ditch	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Black stained dark brown fine SAND, trace Gravel/clay

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-019-SO-0.5-2 **Sample Time:** 1020

Date: 6/4/16 **Sampler:** AH

Weather: Clear 75°

Latitude: 841941.4647 **Longitude:** 1545315.8893

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFSB-019 **PID Reading:** 0.0

Associated Site Feature: Overflow Ditch **Within Site Feature (Y/N):** Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown/dark brown f.t - C SAND, little broken cobble and Gravel, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP13 @ 1200

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-019-SO-10-12	**Sample Time:**	~~1030~~ 0940
Date:	~~6-14-16~~ 6-13-16	**Sampler:**	~~AH~~ SM
Weather:	~~Clear 75°~~ clear 50°		
Latitude:	841941.4647	**Longitude:**	1545315.8893
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-019	**PID Reading:**	0.0 ppm
Associated Site Feature:	Overflow Ditch	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown, sand fm and gravel small-large, trace silt and clay; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-021-SO-0-0.5	**Sample Time:**	1130
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 45°F		
Latitude:	842799.8113	**Longitude:**	1545463.2653
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-021	**PID Reading:**	0.0
Associated Site Feature:	Op Grid	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

SW

Visual Observations: f-c dark brown SAND, some gravel, trace cobbles, ~~trace~~ little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-021-S0-05-2	**Sample Time:**	1140
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 45°F		
Latitude:	842799.8113	**Longitude:**	1545463.2653
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-021	**PID Reading:**	0.0
Associated Site Feature:	Op Grid	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND w/ some gravel, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-021-SO-10-12	**Sample Time:**	1200
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 45°F		
Latitude:	842799.8113	**Longitude:**	1545463.2653
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-021	**PID Reading:**	0.0
Associated Site Feature:	Op Grid	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f-c SAND w/ some gravel, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-022-SO-0-0.5	**Sample Time:**	1010
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, 40° F		
Latitude:	843009.306193	**Longitude:**	1545293.804827
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-022	**PID Reading:**	0.0
Associated Site Feature:	NE Perc. Pond	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown m-c SAND w/ some gravel, little silt, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-022-SO-0.5-2 (SW)	**Sample Time:**	1020
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 40°F		
Latitude:	843009.3061	**Longitude:**	1545293.8048
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-022	**PID Reading:**	0.0
Associated Site Feature:	NE Pen Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND w/ some gravel, trace cobbles, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-022-SO-10-12	**Sample Time:**	1040
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 40°F		
Latitude:	843009.3061	**Longitude:**	1545293.8048
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-022 ~~SO~~ SW	**PID Reading:**	0.0
Associated Site Feature:	NE Pere Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown to gray f-c SAND w/ gravel, trace cobbles, moist, some crushed rock

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-025-SO-0-0.5	**Sample Time:**	1120
Date:	6-13-16	**Sampler:**	Mason
Weather:	clear 60°		
Latitude:	1545159.285890	**Longitude:**	843161.499968
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-025	**PID Reading:**	2.4ppm
Associated Site Feature:	NE Pond	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Black silt and clay with carbon, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-025-50-0.5-2	**Sample Time:**	1130
Date:	6-13-16	**Sampler:**	Mason
Weather:	clear 60°		
Latitude:	1545159.285890	**Longitude:**	843161.499968
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-025	**PID Reading:**	0.2
Associated Site Feature:	NE Pond	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Black Silt and Clay w/ carbon; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-025-50-10-12	**Sample Time:**	1150
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 60°		
Latitude:	1545159.285890	**Longitude:**	843161.499968
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-025	**PID Reading:**	0.0 ppm
Associated Site Feature:	NE Pond	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown SAND f-m, trace small gravel; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-026-50-0-0.5 **Sample Time:** 1210

Date: 6-13-16 **Sampler:** Mason

Weather: clear 65°

Latitude: 1545136.261179 **Longitude:** 843035.498770

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-026 **PID Reading:** 6.5 ppm

Associated Site Feature: NE pond **Within Site Feature (Y/N):** Y

Grab ☑ **Composite** ☐

Visual Observations: Black clay and carbon; petroleum/coal tar pitch odors; wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-026-50-0.5-2	**Sample Time:**	1220
Date:	6-13-16	**Sampler:**	Mason
Weather:	clear 65		
Latitude:	1545136.261179	**Longitude:**	843035.498770
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-026	**PID Reading:**	2.7ppm
Associated Site Feature:	NE pond	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Black Clay and carbon, petroleum / coal tar pitch odors wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-026-50-10-12 **Sample Time:** 1235

Date: 6-13-16 **Sampler:** Mason

Weather: clear 65°

Latitude: 1545130.201179 **Longitude:** 843035.498770

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFSB-026 **PID Reading:** 0.2 ppm

Associated Site Feature: NE pond **Within Site Feature (Y/N):** Y

Grab ☑ **Composite** ☐

Visual Observations: Brown GRAVEL and sand, little silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-~~028~~ 027 SM-SO-0-0.5	**Sample Time:**	1315
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 65°		
Latitude:	1545151.574215	**Longitude:**	842795.373679
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-02~~8~~7 SM	**PID Reading:**	0.0 ppm
Associated Site Feature:	Overflow drainage	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown SAND f-m and gravel; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-02~~8~~7-50-0.5-2	**Sample Time:**	1825
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 65°		
Latitude:	1545151.574215	**Longitude:**	842795.373679
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-02~~8~~7	**PID Reading:**	0.9 ppm
Associated Site Feature:	Overflow drainage	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown SAND f-m and gravel with black carbon layers

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-02~~8~~7 SM-50-10-12	**Sample Time:**	1330
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 65°		
Latitude:	1545151.574215	**Longitude:**	842795.373679
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-02~~8~~7 SM	**PID Reading:**	0.0 ppm
Associated Site Feature:		**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown Sand f-m and Silt with trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-028-SO-0-0.5	**Sample Time:**	1324
Date:	7-18-16	**Sampler:**	GD
Weather:	Sunny, clear 80°F		
Latitude:	1545035.722517	**Longitude:**	843001.232549
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-028	**PID Reading:**	0.0
Associated Site Feature:	Influent ditch	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and silt; some sand f-c; 1/2-1" black material on surface - sandy; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Pushed 0-5' got ~28" recovery. Pushed a second rod to 5' and sampled the top 6" again.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-028-SO-0.5-2	**Sample Time:**	1305
Date:	7-18-16	**Sampler:**	GD
Weather:	Sunny, clear 80°F		
Latitude:	1545035.722517	**Longitude:**	843001.232549
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-028	**PID Reading:**	0.0 ppm
Associated Site Feature:	Influent Ditch	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and Sand f-c; little silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-028-S0-10-12	**Sample Time:**	1338
Date:	7-18-16	**Sampler:**	GD
Weather:	Sunny, clear, 80°F		
Latitude:	1545035.722517	**Longitude:**	843001.232545
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-028	**PID Reading:**	0.0
Associated Site Feature:	Influent Ditch	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and sand; some silt; moist to wet.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-029-SO-0-0.5 **Sample Time:** 810

Date: 5/23/16 **Sampler:** SW

Weather: rain overcast 40°

Latitude: 843352.758773 **Longitude:** 1545124.8696

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-029 **PID Reading:** 0.0

Associated Site Feature: NE Pen Ponds **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Brown m-c SAND w some gravel few cobbles trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ SW
Soil Total Cyanide 9012	X
Soil Fluoride 300	~~X~~
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-029-SO-0.5-2	**Sample Time:**	800
Date:	5/23/10	**Sampler:**	SW
Weather:	rain, 40°F		
Latitude:	843352.758773	**Longitude:**	154 5124.869681
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-029	**PID Reading:**	0.1
Associated Site Feature:	NE D.P.	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown SAND w/ some gravel, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-029-50-10-12	**Sample Time:**	830
Date:	5/23/16	**Sampler:**	SW
Weather:	rain 40 F		
Latitude:	843352.7587	**Longitude:**	1545124.8696
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-029	**PID Reading:**	0.0
Associated Site Feature:	NE Pen Pond	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: brown m-c sand w/ some gravel, few cobbles, trace silt + mash

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-030-S0-0-0.5	**Sample Time:**	1426
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 70°		
Latitude:	1544965.852371	**Longitude:**	843221.135210
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-030	**PID Reading:**	0.0 ppm
Associated Site Feature:	Overflow drainage	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown-black SAND f-m, little silt, abundant roots; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-030-S0-0.5-2	**Sample Time:**	1430
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 70°		
Latitude:	843221.135210	**Longitude:**	1544965.852371 ~~0.0~~
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-030	**PID Reading:**	0.0 ppm
Associated Site Feature:	Overflow drainage	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown SAND f-m, trace silt & roots; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-030-S0-10-12	**Sample Time:**	1435
Date:	6-13-16	**Sampler:**	Mason
Weather:	Clear 70°		
Latitude:	843221.135210	**Longitude:**	1544965.852371
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-030	**PID Reading:**	
Associated Site Feature:	Overflow drainage	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown-grey sand f-m and small-large gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-033-SO-0-0.5	**Sample Time:**	900
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 40°F		
Latitude:	843588.591171	**Longitude:**	1541 5092.333102
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-033	**PID Reading:**	0.0
Associated Site Feature:	Op Grnd	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some gravel, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-033-SO-05-2	**Sample Time:**	910
Date:	5/23/16	**Sampler:**	SW
Weather:	rain 40° F		
Latitude:	843588.59 113 (SW)	**Longitude:**	1545092333 1
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-033	**PID Reading:**	0.0
Associated Site Feature:	Op Gnd	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: dark brown f-c SAND w/ some gravel, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-033-10-12	**Sample Time:**	935
Date:	5/23/16	**Sampler:**	SW
Weather:	rain, 40°F		
Latitude:	843588.5911	**Longitude:**	1545092.3331
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-033	**PID Reading:**	0.0
Associated Site Feature:	Op Grid	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND, little gravel, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-034-SO-0-0.5	**Sample Time:**	10:22
Date:	5/31/2016	**Sampler:**	Arnt
Weather:	Clear 59°		
Latitude:	1545184.539513	**Longitude:**	843907.885851
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-036	**PID Reading:**	0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	~~Operations Area~~ CAT 5/31/16 Y

Grab [X] **Composite** [ ]

Visual Observations: Brown fn-cr SAND, with fn-cr Gravel, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-034-SO-0.5-2.0	**Sample Time:**	10:35
Date:	5/31/2016	**Sampler:**	Arndt
Weather:	Clear 59°		
Latitude:	1545784.539573	**Longitude:**	843907.885857
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2.0
Boring ID:	CFSB-034	**PID Reading:**	0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-cr SAND, with f-cr Gravel, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-034-50-10-12	**Sample Time:**	11:05
Date:	5/3/2016	**Sampler:**	Arndt
Weather:	Clear 59°		
Latitude:	1545184.539513	**Longitude:**	843907.885851
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-034-50-10-12	**PID Reading:**	0.0
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown SAND + GRAVEL f-c gr., moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-035-SOO-0-0.5	**Sample Time:**	11:37
Date:	5/31/2016	**Sampler:**	CMA
Weather:	Clear 64°		
Latitude:	1545252.137383	**Longitude:**	844058.514733
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-035	**PID Reading:**	~~0-0.5~~ 0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fn-cr SAND w/ fn-cr Gravel, trace Silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-035-50-0.5-2.0	**Sample Time:**	11:45
Date:	5/31/2016	**Sampler:**	CMA
Weather:	Clear 64°		
Latitude:	1545252.137383	**Longitude:**	844058.514733
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2.0
Boring ID:	CFSB-035	**PID Reading:**	0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: 1.5' Rec Brown fa-cr SAND, w/ fa-cr Gravel, trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-035-SO-10-12	**Sample Time:**	12:05
Date:	5/31/2016	**Sampler:**	CMT
Weather:	Clear 64°		
Latitude:	1545252.137383	**Longitude:**	844058.574733
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-035	**PID Reading:**	0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fn-cr SAND, some fn-cr Gravel, some Silt. moist - 0.5' Black Silt layer interbedded

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-036-SO-0-0.5	**Sample Time:**	8:22
Date:	5/31/2016	**Sampler:**	Arendt
Weather:	Clear		
Latitude:	1544997.711681	**Longitude:**	843974.731016
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-036	**PID Reading:**	0.00
Associated Site Feature:	Lt Brown Operations Area	**Within Site Feature (Y/N):**	~~Operations Area~~

Grab [X] **Composite** [X] CJA 5/31/2016

Visual Observations: Lt Brown to Brown f to c SAND, with f to c Gravel, little Silt, moist PID 0.00

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-036-SO-0.5-2.0 **Sample Time:** 8:37

Date: 5/31/2016 **Sampler:** Arendt

Weather: Clear 56°

Latitude: 1544997.711681 ~~CFSB-036~~ **Longitude:** 843974731016

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2.0

Boring ID: CFSB-036 **PID Reading:** 0.00

Associated Site Feature: Operations Area **Within Site Feature (Y/N):** ~~Operation~~ Operations Area Y

Grab [X] **Composite** [ ]

Visual Observations: ~~brown f to c SAND, some f-c (+) Gravel, transitk, moist PID~~ 0.00

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-036-SO-10-12	**Sample Time:**	0935
Date:	5/31/2016	**Sampler:**	Arendt
Weather:	Clear		
Latitude:	1544987.71168111	**Longitude:**	843974.731016653
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-036	**PID Reading:**	0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Yes
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown, f-gr SAND, trace fn-cr Gravel, wet.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-037-SO-0-0.5

Sample Time: 13:38

Date: 5/31/2016

Sampler: CM

Weather: Partly Cloudy 66°

Latitude: 1544959.833003

Longitude: 844470.084842

Coordinate system: MT StatePlane

Sample Interval (ft-bls): 0-0.5

Boring ID: CFSB-037

PID Reading: 0.00

Associated Site Feature: Operations Area

Within Site Feature (Y/N): Y

Grab [X]

Composite [ ]

Visual Observations: Brown f-c SAND, with fn-cr Gravel, trace Silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-037-SO-0.5-2.0

Sample Time: 13:45

Date: 5/31/2016

Sampler: CVA

Weather: Partly Cloudy 66°

Latitude: 1544959.833003

Longitude: 844470.084842

Coordinate system: MT StatePlane

Sample Interval (ft-bls): 0.5 - 2.0

Boring ID: CFSB-037

PID Reading: 0.00

Associated Site Feature: Operations Area

Within Site Feature (Y/N): Y

Grab [X]

Composite [ ]

Visual Observations: Brown fa-cr SAND, w/ fa-cr Gravel, trace to some Silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-037-SO-10-12	**Sample Time:**	14:05
Date:	5/31/2016	**Sampler:**	CMA
Weather:	Partly Cloudy 66°		
Latitude:	1544959.833003	**Longitude:**	844470.084842
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-037	**PID Reading:**	0.00
Associated Site Feature:	Operations Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine SAND, some fine gravel, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-038-50-0-0.5	**Sample Time:**	0950
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy pt. cloudy 46F		
Latitude:	842231.412785	**Longitude:**	1544880.212515
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB	**PID Reading:**	0.0
Associated Site Feature:	Raw Material Loading	**Within Site Feature (Y/N):**	Y
Grab	✓	**Composite**	

Visual Observations: brown to dk. brown sand f-c and gravel, roots, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ SMW
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-038-SO-0.5-2 **Sample Time:** 1000

Date: 5-21-16 **Sampler:** Mason

Weather: windy pt. cloudy 46F

Latitude: 842231.412785 **Longitude:** 1544880.212515

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFSB-038 **PID Reading:** 0.0

Associated Site Feature: Raw Material Loading **Within Site Feature (Y/N):** Y

Grab ☑ **Composite** ☐

Visual Observations: brown sand f-c and gravel; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-038-50-10-12	**Sample Time:**	~~1000~~ 1015
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy pt.cloudy 46F		
Latitude:	842231.412785	**Longitude:**	1544880.212515
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-038	**PID Reading:**	0.0
Associated Site Feature:	Raw Material Loading	**Within Site Feature (Y/N):**	Y

Grab [✓] **Composite** [ ]

Visual Observations: Brown GRAVEL and sand m-c; moist.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-040-50-0-0.5	**Sample Time:**	1405
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 60F		
Latitude:	842973.530173	**Longitude:**	1544751.518915
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-040	**PID Reading:**	0.0 ppm
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab ✓ **Composite** ☐

Visual Observations: brown to black stained gravel and sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-040-.50-0.5-2	**Sample Time:**	1415
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 60F		
Latitude:	842973.530173	**Longitude:**	1544751.518915
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 -2
Boring ID:	CFSB-040	**PID Reading:**	611 ppm
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: brown & black stained gravel & sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-040-50-10-12	**Sample Time:**	1440
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 60F		
Latitude:	842973.530173	**Longitude:**	1544751.518915
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-040	**PID Reading:**	4.1 ppm
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab ✓ **Composite** ☐

Visual Observations: Sand and gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	✓
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-42-50-0-0.5	**Sample Time:**	1235
Date:	5-20-16	**Sampler:**	Mason
Weather:	cloudy 55F		
Latitude:	843235.153811	**Longitude:**	1544830.126962
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-042	**PID Reading:**	2.4
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Sand + gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-042-50-0.5-2	**Sample Time:**	1240
Date:	5-20-16	**Sampler:**	Mason
Weather:	cloudy 55F		
Latitude:	843235.153811	**Longitude:**	1544830.126962
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-042	**PID Reading:**	4.1
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: red brown gravel & sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-042-50-10-12	**Sample Time:**	1300
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	843235.153811	**Longitude:**	1544830.126962
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-042	**PID Reading:**	3.6 ppm
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Gravel w/ some f-m sand dry-moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-044-50-0-0.5	**Sample Time:**	1000
Date:	5-20-16	**Sampler:**	Mason
Weather:	mostly cloudy 50F		
Latitude:	843403.491097	**Longitude:**	1544779.467889
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-044	**PID Reading:**	0.0
Associated Site Feature:	~~Main~~ Paste Plant	**Within Site Feature (Y/N):**	Y

Grab [✓] **Composite** [ ]

Visual Observations: Gravel some sand trace clay moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-044-SO-0.5-2 **Sample Time:** 1010

Date: 5-20-16 **Sampler:** MASON

Weather: most cldy 50F

Latitude: 843403.491097 **Longitude:** 1544779.467869

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFSB-044 **PID Reading:** 0.0

Associated Site Feature: ~~Main~~ Paste Plant **Within Site Feature (Y/N):** Y

Grab [✓] **Composite** [ ]

Visual Observations: GRAVEL some sand & trace clay

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-044-SO-10-12	**Sample Time:**	1030
Date:	5-20-16	**Sampler:**	Mason
Weather:	mostly cldy 50F		
Latitude:	843403.491097	**Longitude:**	1544779.467869
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10 - 12
Boring ID:	CFSB-044	**PID Reading:**	2.5
Associated Site Feature:	~~Main~~ Paste Plant	**Within Site Feature (Y/N):**	Y

Grab [✓] **Composite** [ ]

Visual Observations: brown SAND f-ct, little gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-045-50-0-0.5	**Sample Time:**	0800
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy, cloudy 45F		
Latitude:	843197.150956	**Longitude:**	1544671.437319
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-045	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: brown SAND f-c+ some gravel, trace black possible coal tar pitch particles sl. moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-045-50-0.5-2	**Sample Time:**	0810
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 45F		
Latitude:	843197.150956	**Longitude:**	1544671.437319
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-045	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: brown SAND f-c4 some gravel, trace possible coal tar pitch (? black particles) moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-045-50-10-12	**Sample Time:**	0835
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 45F		
Latitude:	843197.150956	**Longitude:**	1544671.437319
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab ✓ **Composite** ☐

Visual Observations: brown-dk. gray SAND and gravel, some gray-black staining, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-046-50-0-0.5	**Sample Time:**	1115
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	843338.125833	**Longitude:**	1544737.498692
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-046	**PID Reading:**	3.5 ppm
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Gravel some f-c sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-046-50-0.5-2	**Sample Time:**	1120
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	843338.125833	**Longitude:**	1544737.498692
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-046	**PID Reading:**	4.9
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Gravel some f-c+ sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-046-50-10-12	**Sample Time:**	1140
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	843338.125833	**Longitude:**	1544737.498692
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-046	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Sand f-m+ trace gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-048-50-0-0.5	**Sample Time:**	0815
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 50F		
Latitude:	843529.474131	**Longitude:**	1544715.163087
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-048	**PID Reading:**	2.6
Associated Site Feature:	~~Paste~~ Main Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Loam topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-048- ~~0-0.5~~ 0.5-2	**Sample Time:**	0825
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 50F		
Latitude:	843529.474131	**Longitude:**	1544715.163087
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 - 2
Boring ID:	CFSB-048	**PID Reading:**	5.2
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Gravel with some sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-048-50-10-12	**Sample Time:**	0855
Date:	5-20-16	**Sampler:**	MASON
Weather:	cloudy 50F		
Latitude:	843529.474131	**Longitude:**	1544715.163087
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-048	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab [✓] **Composite** [ ]

Visual Observations: Sand, little gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-049-50-0.5-2	**Sample Time:**	1210
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 61°F		
Latitude:	1544612.2111	**Longitude:**	843679.3354
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-049	**PID Reading:**	2.4
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and Sand Fr little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No 0-0.5 sample due to asphalt

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-049-50-10-12	**Sample Time:**	1235
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 61°F		
Latitude:	1544612.2111	**Longitude:**	843679.3354
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-049	**PID Reading:**	3.4
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown Gravel and fm sand little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-050-50-0-0.5	**Sample Time:**	1110
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 46F		
Latitude:	942672.202433	**Longitude:**	1544607.654438
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-050	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown GRAVEL and sand, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-050-50-0.5-2	**Sample Time:**	1120
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 46F		
Latitude:	842672.202433	**Longitude:**	1544607.654438
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-050	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown to black GRAVEL and sand, little clay, white fibrous material (insulation?); moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-050-50-10-12	**Sample Time:**	1140
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 46F		
Latitude:	842672.202433	**Longitude:**	1544607.654438
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown GRAVEL and sand f-c sl. moist-dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-051-50-0.5	**Sample Time:**	1350
Date:	5-21-16	**Sampler:**	MASON
Weather:	windy cloudy 46F		
Latitude:	842855.740034	**Longitude:**	1544567.821368
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-051	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown-black-stained SAND fr cm gravel; moist.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-051-SO-0.5-2	**Sample Time:**	1400
Date:	5-21-16	**Sampler:**	Mason
Weather:	windy cloudy 46F		
Latitude:	842855.740034	**Longitude:**	1544567.821368
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-051	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite**	

Visual Observations: Brown-black ~~SA~~ SILTY SAND f-c and gravel, trace coal tar pitch (?) black particles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-051-50-10-12	**Sample Time:**	~~1400~~ 1415
Date:	5-21-16	**Sampler:**	Mason
Weather:	windy cloudy 46F		
Latitude:	842855.740034	**Longitude:**	1544567.821368
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-051	**PID Reading:**	0.0
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown to gray, SAND moist and gravel, sl, moist to dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-052-0.5-2	**Sample Time:**	1525
Date:	5-20-16	**Sampler:**	MASON
Weather:	windy lt. rain 50F		
Latitude:	843204.134881	**Longitude:**	1544560.407339
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-052	**PID Reading:**	4.3 ppm
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations:

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-052-10-12	**Sample Time:**	1545
Date:	5-20-16	**Sampler:**	MASON
Weather:	windy lt. rain		
Latitude:	843204.134881	**Longitude:**	1544560.407339
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-052	**PID Reading:**	5.3
Associated Site Feature:	Paste Plant	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Sand & gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-053-SO-0.5-2.0	**Sample Time:**	15:45
Date:	5/31/2016	**Sampler:**	[illegible]
Weather:	Partly cloudy 69°		
Latitude:	1544360.352957	**Longitude:**	843242.241301
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2.0
Boring ID:	CFSB-053	**PID Reading:**	0.00
Associated Site Feature:	0 Fueling Area	**Within Site Feature (Y/N):**	Yes
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine Sand + Gravel, trace Silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Asphalt cover

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-053 - 50 - 10-12	**Sample Time:**	15:55
Date:	5/31/16	**Sampler:**	Cm
Weather:	Partly Cloudy 69°		
Latitude:	1544360.352957	**Longitude:**	843242.241301
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-053	**PID Reading:**	0.0
Associated Site Feature:	Fueling Area	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine Sand + Gravel, trace silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-054-SO-0-0.5	**Sample Time:**	1420
Date:	5-28-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	8434081787502	**Longitude:**	1544472.2414
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-054	**PID Reading:**	3.3
Associated Site Feature:	Raw Materials loading	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown/dark grey f-c sand and gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSD-054-SO-0.5-2	**Sample Time:**	1430
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	1544472.2414	**Longitude:**	843408.7875
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-054	**PID Reading:**	2.1
Associated Site Feature:	Raw Materials loading	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to dark grey f-c sand and gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-054-50-10-12	**Sample Time:**	1455
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 60°		
Latitude:	1544472.2414	**Longitude:**	843408.7875
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-054	**PID Reading:**	4.8
Associated Site Feature:	Raw Materials Loading	**Within Site Feature (Y/N):**	Yes
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown GRAVEL, some f-c sand trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-055-SO-0-0.5	**Sample Time:**	1300
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 65°F		
Latitude:	1544466.8945	**Longitude:**	843592.7575
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-055	**PID Reading:**	3.4
Associated Site Feature:	Fueling area	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown to black ~~f~~-c sand and gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-055-50-0.5-2	**Sample Time:**	1315
Date:	5/28/16	**Sampler:**	GD
Weather:	P cloudy 60°		
Latitude:	1544466.8945	**Longitude:**	843592.7575
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-055	**PID Reading:**	4.9
Associated Site Feature:	Fueling Area	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown fc SAND and GRAVEL, little Silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-055-50-10-12	**Sample Time:**	1340
Date:	5/28/16	**Sampler:**	GD
Weather:	p Cloudy 65°		
Latitude:	1544466.8945	**Longitude:**	843592.7575
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-055	**PID Reading:**	3.3
Associated Site Feature:	Fueling Area	**Within Site Feature (Y/N):**	Y
	Grab [x]	**Composite** [ ]	

Visual Observations: Brown GRAVEL some sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-057-SD-0-0.5	**Sample Time:**	1045
Date:	5-28-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	1544448.1911	**Longitude:**	843848.0925
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-057	**PID Reading:**	
Associated Site Feature:	Raw materials loading	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown sand and gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-057-SO-0.5-2	**Sample Time:**	1055
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	1544448.1911	**Longitude:**	843848.0925
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-057	**PID Reading:**	2.2
Associated Site Feature:	New materials loading	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to black f-c sand and gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-057-SO-10-12	**Sample Time:**	1110
Date:	5/28/16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	1544448.1911	**Longitude:**	843848.0925
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-057	**PID Reading:**	1.2
Associated Site Feature:	Raw materials loading	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and sand trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-059-SO-0-0.5	**Sample Time:**	0850
Date:	5-28-16	**Sampler:**	GD
Weather:	Overcast 45°F, l. rain		
Latitude:	1544426.0799	**Longitude:**	844128.7816
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-059	**PID Reading:**	1.3
Associated Site Feature:	Raw Materials loading	**Within Site Feature (Y/N):**	No
Grab	X	**Composite**	

Visual Observations: Brown f-c, m sand m gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Dup8 0-0.5'

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-059-SO-0.5-2 **Sample Time:** 0900

Date: 5-28-16 **Sampler:** GD

Weather: Overcast 45°F, light rain

Latitude: 1544426.0799 **Longitude:** 844128.7816

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFSB-059 **PID Reading:** 1.1

Associated Site Feature: Raw Materials loading **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c sand some gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-059-SO-10-12	**Sample Time:**	0930
Date:	5-28-16	**Sampler:**	GD
Weather:	Overcast 45°F, l. rain		
Latitude:	1544426.0799	**Longitude:**	844128.7816
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-059	**PID Reading:**	2.5
Associated Site Feature:	Raw Materials Loading	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c (m+) Sand and Gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-060-SO-0-0.5	**Sample Time:**	1615
Date:	5-27-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F Breeze		
Latitude:	1544374.496810	**Longitude:**	844679.189961
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-060	**PID Reading:**	0.0 PPM
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown GRAVEL, little sand, trace silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-060-S0-0.5-2	**Sample Time:**	1630
Date:	5-27-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F, Breeze		
Latitude:	1544374.496810	**Longitude:**	844679.189961
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-060	**PID Reading:**	0.0 ppm
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown GRAVEL, little sand, trace silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-060-SO-10-12	**Sample Time:**	1655
Date:	5-27-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F Breeze		
Latitude:	1544374.496810	**Longitude:**	844679.189961
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-060	**PID Reading:**	0.0 ppm
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and sand, trace silt; Moist to wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-062 - SO - 0.0-0.5 **Sample Time:** 14:50

Date: 6/2/2016 **Sampler:** CNT

Weather: Overcast 64°

Latitude: 1544232.425104 **Longitude:** 841808.118518

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-062 **PID Reading:** 5.7

Associated Site Feature: West Percolation Pad **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown, fn-cr Sand, some fn-cr gravel, trace silt, trace plant root material, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-062-SO-0.5-2.0	**Sample Time:**	15:00
Date:	6/2/2016	**Sampler:**	CAT
Weather:	Overcast 64°		
Latitude:	1544232.425104	**Longitude:**	841909.118518
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2.0
Boring ID:	CFSB-062	**PID Reading:**	1.9
Associated Site Feature:	West Percolation Pond	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine-c Sand, some fine-c Gravel, little silt, moist, trace root material

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-062 -SO-10-12	**Sample Time:**	15:40
Date:	6/2/2016	**Sampler:**	CM
Weather:	Overcast 64°		
Latitude:	1544232.425104	**Longitude:**	841909.118518
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-062	**PID Reading:**	9.8
Associated Site Feature:	West Percolation Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown fine-coarse Sand and Gravel, little cobbles, trace silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-064-SO-0.0-0.5 **Sample Time:** 8:00

Date: 6/3/2016 **Sampler:** CM

Weather: Partly Cloudy 55°

Latitude: 1544179.215351 **Longitude:** 841896.213204

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-064 **PID Reading:** 0.0

Associated Site Feature: West Percolation ~~Pond~~ Area **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Silt brown some fine sand + gravel, little plant matter (roots) moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-064-SO-0.5-2.0 **Sample Time:** 8:08

Date: 6/3/2016 **Sampler:** CAA

Weather: Partly Cloudy 55°

Latitude: 1844179.215351 **Longitude:** 841896.213204

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2.0

Boring ID: CFSB-064 **PID Reading:** 0.0

Associated Site Feature: West Percolation Area **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Silt brown, some clay trace f-m sand roots

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-064-SO-10-12 **Sample Time:** 8:50

Date: 6/3/2016 **Sampler:** CAT

Weather: Partly Cloudy 60°

Latitude: 1544179.215351 **Longitude:** 841896.213204

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFSB-064 **PID Reading:** 0.0

Associated Site Feature: West Percolation Area **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: 3' Recovery, Brown fine Sand + Gravel, little silt and cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-065-SO-0.0=0.5	**Sample Time:**	13:55
Date:	6/2/2016	**Sampler:**	CA
Weather:	Overcast 62		
Latitude:	1544132.496470	**Longitude:**	842037.982890
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-065	**PID Reading:**	1.8
Associated Site Feature:	West percolation Pond	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown Sand f-c, Some f/-c Gravel, little Silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-065-SO-0.5-2.0 **Sample Time:** 14:02

Date: 6/2/2016 **Sampler:** CA

Weather: Overcast 62°

Latitude: 15-44132.496470 **Longitude:** 842037.982890

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2.0

Boring ID: CFSB-065 **PID Reading:** 8.0

Associated Site Feature: West Percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c Sand and Gravel alternating w/ Dk brown Silt, some fine sand and gravel, trace Plant roots

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-065-SO-10-12 **Sample Time:** 14:24

Date: 6/2/2016 **Sampler:** CNT

Weather: Overcast 62°

Latitude: 15-44132.496470 **Longitude:** 842037.982890

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFSB-065 **PID Reading:** 4.1

Associated Site Feature: West Percolation Pond **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: ~~Brown~~ Brown fine Sand and Gravel, little cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-066-SO-0-0.5	**Sample Time:**	1458
Date:	5-27-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	~~[illegible]~~ see GPS 1543757.0185	**Longitude:**	8447617.2050
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-066	**PID Reading:**	0.0
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	NO
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown sand ft-c and gravel trace silt ~~[illegible] Brown Gravel and Sand little silt~~

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-066-SO-0.5-2	**Sample Time:**	1510
Date:	5-27-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	See GPS 1543757.0185	**Longitude:**	844617.2050
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-066	**PID Reading:**	0.0
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: ~~[illegible]~~ Brown sand f-c and gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-066-S0-10-12	**Sample Time:**	1530
Date:	5-27-16	**Sampler:**	GD
Weather:	P. Cloudy 60°F		
Latitude:	See GPS 1543757.0185	**Longitude:**	— 844617.2050
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-066	**PID Reading:**	0.0
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: ~~[illegible]~~ Brown Gravel and sand little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-068-SO-0.5-2	**Sample Time:**	1340
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F		
Latitude:	See GPS	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-068	**PID Reading:**	0.0
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: ~~[illegible]~~ Brown sand f-c little gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-068-So-10-12	**Sample Time:**	1405
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F		
Latitude:	See GPS	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-068	**PID Reading:**	0.0
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	NO

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c sand some gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-069-S0-0-0.5	**Sample Time:**	1155
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F l. breeze		
Latitude:	See GPS	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0 - 0.5
Boring ID:	CFSB-069	**PID Reading:**	0.0
Associated Site Feature:	main Plant	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: ~~[illegible]~~ Brown sand and gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-069-SO-0.5-2	**Sample Time:**	1215
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F Breeze		
Latitude:	See GPS	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-069	**PID Reading:**	0.0 ppm
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	NO
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown sand f-c some gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-069-SO-10-12	**Sample Time:**	1235
Date:	5-27-16	**Sampler:**	GD
Weather:	Over cast 60°F Breeze		
Latitude:	See GPS	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-069	**PID Reading:**	0.0 PPM
Associated Site Feature:	Main Plant	**Within Site Feature (Y/N):**	No
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown sand f-c and gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-071-SO-0-0.5	**Sample Time:**	0955
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F		
Latitude:	See GPS	**Longitude:**	–
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-071	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yards	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown sand f-c and gravel little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-071-SO-0.5-2	**Sample Time:**	1005
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F		
Latitude:	See GPS	**Longitude:**	—
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-071	**PID Reading:**	0.0
Associated Site Feature:	Rectifier yard	**Within Site Feature (Y/N):**	N

Grab ☐ **Composite** ☐

Visual Observations: Brown sand f-c and gravel trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-071-50-10-12	**Sample Time:**	1030
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 60°F L. Rain		
Latitude:	See GPS	**Longitude:**	–
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-071	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yard	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown gravel and f-c sand little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Dup 7 @ 1045

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-073-50-0-0.5	Sample Time:	1340
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543061.904471	Longitude:	844220.268041
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-073	PID Reading:	0.0
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab [✓] Composite [ ]

Visual Observations: Brown to gray SAND f-c, some gravel, trace silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-073-0.5-2	Sample Time:	1345
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543061.904471	Longitude:	844220.268041
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-073	PID Reading:	0.1 (background)
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab [✓] Composite [ ]

Visual Observations: SAA grading down to Brown SAND f-c, little gravel; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and NDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-073-50-10-12

Sample Time: 1355

Date: 6-1-16

Sampler: Mason

Weather: clear

Latitude: 1543061.904471

Longitude: 844220.268041

Coordinate system: MT State Plane

Sample Interval (ft-bls): 10-12

Boring ID: CFSB-073

PID Reading: 0.0 ppm

Associated Site Feature: East Rectifier Yard

Within Site Feature (Y/N): Y

Grab [✓]

Composite [ ]

Visual Observations: Brown Gravel and Sand f-c, little cobble

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-074-50-0-0.5	Sample Time:	1435
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543052.946826	Longitude:	844399.743468
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-074	PID Reading:	0.0
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab [✓] Composite [ ]

Visual Observations: Brown-dk. brown SAND f-c, some gravel, trace silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-074-SO-0.5-2	Sample Time:	1445
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543052.946826	Longitude:	844399.743468
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-074	PID Reading:	0.0
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab [✓] Composite [ ]

Visual Observations: GRAVEL, lt. brown, some sand f-c, trace silt; moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001 Y002
Sample ID:	CFSB-074-50-10-12	Sample Time:	1450
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543052.946826	Longitude:	844399.743468
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-074	PID Reading:	0.0 ppm
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab ✓ Composite ☐

Visual Observations: Gray-brown GRAVEL and sand m-c little cobble; sl. moist-dry

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-075-50-0-0.5	**Sample Time:**	1255
Date:	6-1-16	**Sampler:**	Mason
Weather:	clear		
Latitude:	1543003,329365	**Longitude:**	844091.677844
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-075	**PID Reading:**	0.0
Associated Site Feature:	East Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown Sand f-c and gravel, little silt, trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ (A)
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-075-SO-0.5-2

Sample Time: 1305

Date: 5-21-16

Sampler: Mason

Weather: clear

Latitude: 1543003.329365

Longitude: 844091.677844

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0.5-2

Boring ID: CFSB-075

PID Reading: 0.0

Associated Site Feature: East Rectifier Yard

Within Site Feature (Y/N): Y

Grab [✓]

Composite [ ]

Visual Observations: Brown Sand f-c and gravel, little silt, trace clay, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-075-SO-10-12	Sample Time:	1315
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543003.329365	Longitude:	844091.677844
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-075	PID Reading:	0.0 ppm
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab [✓] Composite [ ]

Visual Observations: Brown Sand m-c and gravel, trace silt; moist,

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-079-0-0.5	Sample Time:	1010
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543082.115715	Longitude:	843775.837208
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-079	PID Reading:	0.0ppm
Associated Site Feature:	Rectifier Yard	Within Site Feature (Y/N):	Y
	Grab ✓	Composite	

Visual Observations: Brown, SAND f-c, some gravel little silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-079-50-10-12	Sample Time:	1110
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543082.115715	Longitude:	843775.837208
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-079	PID Reading:	0
Associated Site Feature:	East fertilizer yard	Within Site Feature (Y/N):	Yes
	Grab ✓	Composite	☐

Visual Observations: Brown, SAND f-c, some gravel, lithosilt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-079-50-0.5-2	Sample Time:	1020
Date:	6-1-16	Sampler:	Mason
Weather:	clear		
Latitude:	1543082.115715	Longitude:	843775.837208
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5 - 2
Boring ID:	CFSB-079	PID Reading:	0.0ppm
Associated Site Feature:	East Rectifier Yard	Within Site Feature (Y/N):	Y

Grab [✓] Composite [ ]

Visual Observations: Brown, SAND f-c, some gravel, little silt, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-080-50-0-0.5	**Sample Time:**	0920
Date:	6-1-16	**Sampler:**	Mason
Weather:	clear		
Latitude:	1543107.193819	**Longitude:**	843683.783120
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-080	**PID Reading:**	0.0 ppm
Associated Site Feature:	East Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown, f-c Sand and gravel, little silt, trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-080-50-0.5-2	**Sample Time:**	0930
Date:	6-1-16	**Sampler:**	Mason
Weather:	clear		
Latitude:	1543107.193819	**Longitude:**	843683.783120
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-080	**PID Reading:**	0.0 ppm
Associated Site Feature:	Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [✓] **Composite** [ ]

Visual Observations: Brown, f-c Sand and gravel, little silt, trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-080-50-10-12	**Sample Time:**	0940
Date:	6-1-16	**Sampler:**	Mason
Weather:	clear		
Latitude:	1543107.193819	**Longitude:**	843683.783120
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-080	**PID Reading:**	0.0
Associated Site Feature:	Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown SAND f-c, some gravel and silt, trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-082-50-0-0.5	**Sample Time:**	0815
Date:	6-1-16	**Sampler:**	SM
Weather:	clear		
Latitude:	1543153.925546	**Longitude:**	843596.318558
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-082	**PID Reading:**	0.0 ppm
Associated Site Feature:	East Rectifier Yard	**Within Site Feature (Y/N):**	Y
Grab	✓	**Composite**	

Visual Observations: Brown-Red, FILL, Gravel-c, angular and f-c sand, dry-moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-082-50-0.5-2	**Sample Time:**	0820
Date:	6-1-16	**Sampler:**	SM
Weather:	clear		
Latitude:	1543153.925546	**Longitude:**	843596.318558
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-082	**PID Reading:**	0.0 ppm
Associated Site Feature:	East Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: SAA grading down to Brown, Gravel and Sand f-c, trace silt, trace clay, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	Y
Soil TCL SVOCs 8270	Y
Soil TAL Metals 6010	Y
Soil TCL PCBs 8082	Y
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-082-SO-10-12	**Sample Time:**	0930
Date:	6-1-16	**Sampler:**	SM
Weather:	clear		
Latitude:	1543153.925546	**Longitude:**	843596.318558
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-082	**PID Reading:**	0.0 ppm
Associated Site Feature:	East Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown, layered SAND f-c little silt, moist grading down to sand and gravel, subround-subangular, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	Y
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-084-SO-0-0.5	**Sample Time:**	0750
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 55°F		
Latitude:	1543114.876776	**Longitude:**	843209.031525
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-084	**PID Reading:**	0.1 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel some sand little silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ SW
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-084-SO-0.5-2	**Sample Time:**	0830
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 55°F		
Latitude:	1543114.876776	**Longitude:**	843209.031525
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 - 2
Boring ID:	CFSB-084	**PID Reading:**	0.0 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and sand little silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-084-SO-10-12	**Sample Time:**	0855
Date:	5-27-16	**Sampler:**	GD
Weather:	Overcast 55°F		
Latitude:	1543114.876776	**Longitude:**	843209.031525
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-084	**PID Reading:**	0.0 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations:

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-086-SO-0-0.5	**Sample Time:**	1325
Date:	5-26-16	**Sampler:**	GD
Weather:	P. Cloudy 65°F		
Latitude:	1543138.633532	**Longitude:**	843054.363539
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-086	**PID Reading:**	0.0 ppm
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to red Gravel some sand m-c trace silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sample collected immediately below ~2 inches of red crushed rock surface fill.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-086-SO-0.5-2	**Sample Time:**	1340
Date:	5-26-16	**Sampler:**	GD
Weather:	P. Cloudy 65°F		
Latitude:	1543138.633532	**Longitude:**	843054.363539
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5 - 2
Boring ID:	CFSB-086	**PID Reading:**	0.0 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown Sand f-c(+) and gravel trace silt, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-086-SO-10-12	**Sample Time:**	1425
Date:	5-26-16	**Sampler:**	GD
Weather:	P. Cloudy, l. breeze, storm building 70°F		
Latitude:	1543138.633532	**Longitude:**	843054.363539
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-086	**PID Reading:**	1.1 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown Gravel and Sand; Moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-087-SO-0-0.5	**Sample Time:**	1200
Date:	5-26-16	**Sampler:**	GD
Weather:	P. Cloudy 65°F - storm clouds to west		
Latitude:	1543151.570533	**Longitude:**	842968.750578
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-087	**PID Reading:**	0.0 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	y

Grab [X] **Composite** [ ]

Visual Observations: Brown Sand m-c and gravel; moist to wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sample collected immediately below ~2 inches of red crushed rock surface fill.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-087-SO-0.5-2 **Sample Time:** 1215

Date: 5-26-16 **Sampler:** GD

Weather: P. Cloudy 65°F - storm clouds to the west

Latitude: 1543151.570533 **Longitude:** 842968.750578

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFSB-087 **PID Reading:** 0.0 PPM

Associated Site Feature: West Rectifier Yard **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Gravel and sand little silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-087-50-10-12	**Sample Time:**	1245
Date:	5-26-16	**Sampler:**	GD
Weather:	P. Cloudy 65°F - few drops rain after sample		
Latitude:	1543151.570533	**Longitude:**	842968.750578
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-087	**PID Reading:**	0.0 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown GRAVEL little sand little silt; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-088-SO-0-0.5	**Sample Time:**	1010
Date:	5-26-16	**Sampler:**	GD
Weather:	Partly cloudy 60°F		
Latitude:	1543093.014823	**Longitude:**	842788.523869
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-088	**PID Reading:**	0.6 PPM
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown Sand and gravel; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sample collected immediately below ~2 inches of red crushed rock surface fill.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-088-S0-0.5-2	**Sample Time:**	1020
Date:	5-26-16	**Sampler:**	GD
Weather:	Partly Cloudy 60°F		
Latitude:	1543093.014823	**Longitude:**	842788.523869
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-088	**PID Reading:**	0.6 ppm
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown GRAVEL and sand; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSD-088-SO-10-12	**Sample Time:**	1110
Date:	5-26-16	**Sampler:**	GD
Weather:	Partly Cloudy 60°F		
Latitude:	1543093.014823	**Longitude:**	842788.523869
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-088	**PID Reading:**	0.0 PPM
Associated Site Feature:	West Rectifier yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown GRAVEL some Sand; Moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-092-SO-0-0.5	**Sample Time:**	0838
Date:	5-26-16	**Sampler:**	GD
Weather:	Overcast 47°F		
Latitude:	842704.3635	**Longitude:**	1543083.2269
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-092	**PID Reading:**	0.2 ppm
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Sand and gravel trace silt; moist.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Collected immediately below the ~2 inches of red crushed rock surface fill.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-092-S0-0.5-2	**Sample Time:**	0850
Date:	5-26-16	**Sampler:**	GD
Weather:	Overcast 47°F		
Latitude:	842704.3635	**Longitude:**	1543083.2269
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-092	**PID Reading:**	0.1 ppm
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown SAND f-c and gravel trace silt; moist.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-092-SO-10-12	**Sample Time:**	
Date:	5-26-16	**Sampler:**	GD
Weather:	Overcast 47°F		
Latitude:	842704.3635	**Longitude:**	1543083.2269
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-092	**PID Reading:**	0.6 ppm
Associated Site Feature:	West Rectifier Yard	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown GRAVEL some sand; moist to wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	X
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB - 094 - SO - 0 - 0.5

Sample Time: 1400

Date: 5/24/16

Sampler: SW

Weather: overcast, 50°F

Latitude: 842576.7894

Longitude: 1543115.3634

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0 - 0.5

Boring ID: CFSB - 094

PID Reading:

Associated Site Feature: Rectifier Yard

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Brown to red GRAVELLY m-c Sand, little crushed rock

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-094-SO-0.5-2	**Sample Time:**	1410
Date:	5/24/16	**Sampler:**	SW
Weather:	overcast, 50° F		
Latitude:	842576.7894	**Longitude:**	1543115
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-094	**PID Reading:**	
Associated Site Feature:	Rectifier Yard	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown SAND w/ some gravel, little cobbles, trace silt

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB - 094 - 50 - 10 - 12

Sample Time: 1430

Date: 5/24/16

Sampler: SW

Weather: overcast, 50° F

Latitude: 842576.7894

Longitude: 1543115.3634

Coordinate system: MT State Plane

Sample Interval (ft-bls): 10-12

Boring ID: CFSB - 094

PID Reading:

Associated Site Feature: Rechter Yard

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: orange to yellow and gray GRAVEL w/ f-c sand

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	~~X~~ SW
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y001
Sample ID:	CFSB-095-SO-0-0.5	**Sample Time:**	1300
Date:	5/24/16	**Sampler:**	SVV
Weather:	overcast, 50 F		
Latitude:	841962.1438	**Longitude:**	1543084.2758
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-095	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND w/some gravel, trace cobbles,

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB - 095 - SO - 0.5-2	**Sample Time:**	1310
Date:	5/24/16	**Sampler:**	SW
Weather:	overcast, 50°F		
Latitude:	841962.1438	**Longitude:**	1543084.2758
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB - 095	**PID Reading:**	0.0
Associated Site Feature:	(SW) Rod mill ~~Dark brown f-c SAN~~	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND w/ some gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476-0001Y002
Sample ID:	CFSB-095-SO-10-12	**Sample Time:**	1330
Date:	5/24/16	**Sampler:**	SW
Weather:	overcast, 50°F		
Latitude:	841962.1438	**Longitude:**	1543084.2758
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-095	**PID Reading:**	
Associated Site Feature:		**Within Site Feature (Y/N):**	

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray GRAVEL w/ some m-c sand, little crushed rock

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001.4002
Sample ID:	CFSB-097-SO-0-0.5	**Sample Time:**	1050
Date:	5/24/16	**Sampler:**	SVV
Weather:	clear, 50° F		
Latitude:	841287.4945	**Longitude:**	1643140.5325
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-097	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some gravel, little crushed rock, trace silt

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-097-SD-0.5-2	**Sample Time:**	1100
Date:	5/24/16	**Sampler:**	SW
Weather:	overcast, 50°F		
Latitude:	841287.4945	**Longitude:**	1543140.5325
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-097	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND, w/ little gravel, trace crushed rock

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-097-50-10-12	**Sample Time:**	1115 (SW)
Date:	5/24/16	**Sampler:**	SW
Weather:	overcast, 50°F		
Latitude:	841287.4945	**Longitude:**	1543140.5325
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-097	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND w/ some gravel, trace cobbles, crushed rock

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-098-S0-0-0.5	**Sample Time:**	1000
Date:	5/24/16	**Sampler:**	SW
Weather:	clear 60°F		
Latitude:	84 1237.5653	**Longitude:**	154 29 76.9446
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-098	**PID Reading:**	6.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-c SAND w/ some gravel, moist, few cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-098-SO-0.5-2	**Sample Time:**	1010
Date:	5/24/16	**Sampler:**	SW
Weather:	Clear, 60°F		
Latitude:	841237.5653	**Longitude:**	1542976.9446
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-098	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c SAND w/ some gravel, moist, few cobbles

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-098-SO-10-12	**Sample Time:**	1030
Date:	5/24/16	**Sampler:**	SW
Weather:	clear, 60°F		
Latitude:	841237.5653	**Longitude:**	1542976.9446
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-098	**PID Reading:**	
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown to gray GRAVEL w/ some m-c sand, trace cobbles

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-099-SO-0-0.5	**Sample Time:**	745
Date:	5/24/2016	**Sampler:**	SW
Weather:	Light Rain, ~45°		
Latitude:	840982.8824	**Longitude:**	1543207.9698
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-099	**PID Reading:**	0.2
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Dk brown f-m SAND w/ some gravel, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP @ 750

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-099-SO-0.5-2	**Sample Time:**	800
Date:	5/23/16	**Sampler:**	SW
Weather:	light Rain, ~45°		
Latitude:	840982.9424	**Longitude:**	1543207.9698
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-099	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown gravelly f-m SAND, trace silt, moist, trace coking

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-099-SO-10-12	**Sample Time:**	820
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, light ~45°		
Latitude:	840982.8824	**Longitude:**	1543207.9698
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-099	**PID Reading:**	
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray gravely SAND (m-c), trace cobbles, little crushed rock

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-100-SO-0-0.5	**Sample Time:**	850
Date:	5/23/16	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	841122.1179	**Longitude:**	1542949.9611
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-100	**PID Reading:**	0.1
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown GRAVEL, with some f-c Sand, little cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001.4002
Sample ID:	CFSB-100-SO-0.5-2	Sample Time:	900
Date:	5/24/16	Sampler:	SW
Weather:	Rain, ~45°		
Latitude:	841122.1179	Longitude:	1542949.9611
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-100	PID Reading:	
Associated Site Feature:	Rod Mill	Within Site Feature (Y/N):	Y
	Grab [X]	Composite [ ]	

Visual Observations: Brown gravelly some f-c sand, little cobbles.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-100-SO-10-12	**Sample Time:**	920
Date:	5/24/2016	**Sampler:**	SW
Weather:	Rain, ~45°		
Latitude:	841122.1179	**Longitude:**	1542949.9611
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-100	**PID Reading:**	
Associated Site Feature:	Rod Mill	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown Sandy GRAVEL few cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-101-SO-0-0.5	**Sample Time:**	~~1140~~ SM 1156
Date:	7-21-16	**Sampler:**	SM
Weather:	clear 80°		
Latitude:	1542270.262462	**Longitude:**	842670.589754
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-101	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Ditch	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Dark brown, Silt and Sand with organic matter + roots; moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-101-S0-0.5-2	**Sample Time:**	1155
Date:	~~6-13~~ 7-21-16	**Sampler:**	Mason
Weather:	clear 80°		
Latitude:	1542270.262462	**Longitude:**	842670.589754
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-101	**PID Reading:**	0.0 ppm
Associated Site Feature:	South Perc. Pond Ditch	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown, Sand (f) and Silt, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	Y
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-101-50-10-12	**Sample Time:**	1200
Date:	SM ~~6-13~~ 7-21-16	**Sampler:**	Mason
Weather:	clear 80°		
Latitude:	154270.262462	**Longitude:**	842670.587754
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-	**PID Reading:**	0.0 ppm
Associated Site Feature:	South Perc. Pond ditch	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown, Sand (f) and Silt, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-102-SO-0-0.5	**Sample Time:**	1330
Date:	07/13/16	**Sampler:**	SW
Weather:	Clear, 70°F		
Latitude:	1542051.2259	**Longitude:**	843366.2707
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-102	**PID Reading:**	1.2
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	SW Y
Grab	X	**Composite**	

Visual Observations: Light brown f. SAND with some silt, some roots/grass/topsoil, little f/m gravel, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-102-SO-0.5-2 **Sample Time:** 1345

Date: 07/13/16 **Sampler:** SW

Weather: clear, 70°F

Latitude: 1542051.2259 **Longitude:** 843366.2707

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.5-2

Boring ID: CFSB-102 **PID Reading:** 1.7

Associated Site Feature: South Percolation Ponds **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f-c GRAVEL with some f-c Sand, little cobbles, trace silt, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-102-SO-10-12 **Sample Time:** 1400

Date: 07/13/16 **Sampler:** SW

Weather: Clear, 70°F

Latitude: 1542051.2259 **Longitude:** 843366.2707

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 10-12

Boring ID: CFSB-102 **PID Reading:** 0.1

Associated Site Feature: South Percolation Ponds **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray f-c GRAVEL with some cobbles, little m-c sand, wet, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-104-SO-0-0.5 **Sample Time:** 1200

Date: 7/13/16 **Sampler:** SW

Weather: partly cloudy, 65°F

Latitude: 843245.3778 **Longitude:** 1541957.3090

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-104 **PID Reading:** 0.0

Associated Site Feature: South Percolation Ponds **Within Site Feature (Y/N):** SW ~~N~~ Y

Grab [X] **Composite** [ ]

Visual Observations: light brownish gray SILT with some cobbles, some m-c gravel, little f. sand, soft, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-104-SO-0.5-2	**Sample Time:**	1210
Date:	07/13/16	**Sampler:**	SW
Weather:	partly cloudy, 65°F		
Latitude:	1541957.3090	**Longitude:**	843245.3778
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-104	**PID Reading:**	1.1
Associated Site Feature:	South Perc Ponds	**Within Site Feature (Y/N):**	Y (SW) ~~N~~
	Grab [X]	**Composite** [ ]	

Visual Observations: Brownish gray f-c GRAVEL with some cobbles, little silt, little f. sand, wet, dense

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-104-SO-10-12	**Sample Time:**	1230
Date:	07/13/16	**Sampler:**	SW
Weather:	partly cloudy, 65°F		
Latitude:	1541957.3090	**Longitude:**	243245.3778
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-104	**PID Reading:**	2.4
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	SW ~~N~~ Y

Grab [X] **Composite** [ ]

Visual Observations: Brown to gray COBBLES with some f-c gravel, little f. sand, trace silt, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-109-SO-0-0.5	**Sample Time:**	1500
Date:	07/13/16	**Sampler:**	SW
Weather:	Clear, 75°F		
Latitude:	1542036.1757	**Longitude:**	843467.~~480~~ 0148 (SW)
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-109	**PID Reading:**	0.9
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Light brown SILT with some f. sand, trace gravel (fine), and little roots/grass, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-109-SO-0.5-2	**Sample Time:**	1515
Date:	07/13/16	**Sampler:**	SVV
Weather:	Clear, 75°F		
Latitude:	154 2036.1757	**Longitude:**	843467.0148
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-109	**PID Reading:**	0.5
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	Y

Grab ☐ **Composite** ☐

Visual Observations: Light brown SILT with some f-m gravel, trace cobbles, little f. sand, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-109-SO-10-12	**Sample Time:**	1530
Date:	07/13/16	**Sampler:**	SW
Weather:	clear, 75°F		
Latitude:	154 2036.1757	**Longitude:**	843467.0148
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-109	**PID Reading:**	0.2
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Brown to gray m-c GRAVEL, some cobbles, little m-c sand, trace silt, wet, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-110-50-0-0.5	**Sample Time:**	900
Date:	7/14/16	**Sampler:**	SW
Weather:	partly cloudy, 55° F		
Latitude:	154945.6355	**Longitude:**	843534.9152
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-110	**PID Reading:**	1.6
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	y

Grab [✓] **Composite** [ ]

Visual Observations: Light brown to gray SILT with some f. sand, little cobbles, trace f. gravel, trace roots/wood, moist to wet, soft

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-110-SO-0.5-2	**Sample Time:**	910
Date:	7/14/16	**Sampler:**	SW
Weather:	partly cloudy, 55°F		
Latitude:	154 1965.6355	**Longitude:**	843534 9152
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-110	**PID Reading:**	0.5
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown m-c GRAVEL with some cobbles, little f. sand, wet, 100 sc

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-110-SO-10-12	**Sample Time:**	930
Date:	7/14/16	**Sampler:**	SW
Weather:	partly cloudy, 55°F		
Latitude:	154 1965.4355	**Longitude:**	843534.9152
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-110	**PID Reading:**	0.4
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown m-c GRAVEL, some cobbles, little m-c sand, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-113-SO-0-0.5	**Sample Time:**	0910
Date:	8/31/16	**Sampler:**	SW/AH
Weather:	hazy, 70°F		
Latitude:	154857.6416	**Longitude:**	844149.0056
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-113	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [x] **Composite** [ ]

Visual Observations: Lt. brown SAND(f.) with silt, trace f. gravel, loose, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	x
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-113-SO-0-0.5Pb	**Sample Time:**	0915
Date:	8/31/16	**Sampler:**	AH
Weather:	Clear 80°F		
Latitude:	154 1857.6416	**Longitude:**	244149.0056
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-113	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes
Grab	X	**Composite**	

Visual Observations: Light brown f. SAND with SILT, trace f. gravel, loose, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil ~~TAL Metals 6010~~ Lead only	X
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved only

mass weight: 386g

sieved weight: 141g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-113-SO-0.5-2	**Sample Time:**	0920
Date:	8/31/16	**Sampler:**	AH / SW
Weather:	clear, 80°F		
Latitude:	1541857.6416	**Longitude:**	844149.0056
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-113	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [x] **Composite** [ ]

Visual Observations: Brown f. SAND, some f-m gravel, little cobbles/boulders, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	x
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-113-SO-2-4	**Sample Time:**	0945
Date:	8/31/16	**Sampler:**	AH / SW
Weather:	clear, 80°F		
Latitude:	1541257.6416	**Longitude:**	844149.0056
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	2-4
Boring ID:	CFSB-113	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown m-c SAND, some m-c gravel, little cobbles/boulders up to 10" long, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

See ROM #7

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-114-SO-0-0.5	**Sample Time:**	930
Date:	7/12/16	**Sampler:**	SVV
Weather:	Clear, 55°F		
Latitude:	1541634.3003	**Longitude:**	844105.2149
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-114	**PID Reading:**	0.6
Associated Site Feature:	S. Pere Ponds	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Dark brown f. SAND with some f-m gravel, little silt, trace cobbles, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-114-SD-0.5-2	**Sample Time:**	940
Date:	7/12/16	**Sampler:**	SW
Weather:	Clear, 55°F		
Latitude:	1541634.3003	**Longitude:**	844105.2149
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-114	**PID Reading:**	0.2
Associated Site Feature:	South Pere Ponds	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: M-brown to orange (hue) f SAND with some silt, little f gravel, trace cobbles, dense to loose mod. st

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-114-SO-10-12	**Sample Time:**	1000
Date:	7/12/16	**Sampler:**	SW
Weather:	clear, 55°F		
Latitude:	1541634.3003	**Longitude:**	844105.2149
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-114	**PID Reading:**	0.6
Associated Site Feature:	South Pere Ponds	**Within Site Feature (Y/N):**	N
	Grab [X]	**Composite** [ ]	

Visual Observations: Lt. brown f. SAND, some f-m gravel, little silt, trace cobbles, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-115-SO-0-0.5	**Sample Time:**	1045
Date:	8/31/16	**Sampler:**	AH/SW
Weather:	hazy, 80°F		
Latitude:	(SW) 1541863.7297	**Longitude:**	844215.1630
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-115	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [x] **Composite** [ ]

Visual Observations: Light brown SILT, some f. sand, trace f. gravel, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-115-SO-0.5-2	**Sample Time:**	1050
Date:	8/31/16	**Sampler:**	AH/SW
Weather:	hazy, 80°F		
Latitude:	154 1263.7297	**Longitude:**	844215.1630
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-115	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c(+) SAND, some silt and f-c gravel, little cobble, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-115-SO-2-4	**Sample Time:**	1120
Date:	8/31/16	**Sampler:**	AH/SW
Weather:	hazy, 80°F		
Latitude:	1541863.7297	**Longitude:**	844 215.1630
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	2-4
Boring ID:	CFSB-115	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown f-c (G) SAND and f-m GRAVEL, some cobble and boulders, moist to very moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

See ROM #7

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-116-SO-0-0.5	**Sample Time:**	0930
Date:	7-21-16	**Sampler:**	SM
Weather:	clear 85°		
Latitude:	1541607.106273	**Longitude:**	845083.883733
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-116	**PID Reading:**	0.0 ppm
Associated Site Feature:	South Perc. Pond	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: Brown SAND (f-c) little silt, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Collect with shovel and spoon; re-located due to ponded water

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-116-50-0.5-2	**Sample Time:**	0940
Date:	7-22-16	**Sampler:**	SM
Weather:	clear 85°		
Latitude:	1541607.106273	**Longitude:**	845083.883733
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-116	**PID Reading:**	0.0 ppm
Associated Site Feature:	South Perc. Pond	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown Sand and Gravel, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Collect with shovel & spoon; re-located due to ponded water

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-116-SO-10-12	**Sample Time:**	0920
Date:	7-22-16	**Sampler:**	SM
Weather:	clear 85°		
Latitude:	1541607.106273	**Longitude:**	845083.883733
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-116	**PID Reading:**	0.0 ppm
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Y

Grab ✓ **Composite** ☐

Visual Observations: Brown Sand and Gravel, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located due to ponded water

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-118-50-0-0.5	**Sample Time:**	1305
Date:	7-21-16	**Sampler:**	SM
Weather:	clear 85°		
Latitude:	845391.489866	**Longitude:**	1541584.985429
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-118	**PID Reading:**	0.0
Associated Site Feature:	South Per. Pond	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: Brown, Sand (f-m) and Gravel, loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-118-SO-0.5-2	**Sample Time:**	1350
Date:	7-21-16	**Sampler:**	SM
Weather:	clear 85°		
Latitude:	1541584.985429	**Longitude:**	845391.489866
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2'
Boring ID:	CFSB-118	**PID Reading:**	0.0
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Y

Grab [✓] **Composite** [ ]

Visual Observations: Brown Sand (m-c) and Gravel; loose, wet,

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-118-SO-10-12	**Sample Time:**	1340
Date:	7-21-16	**Sampler:**	SM
Weather:	Clear 85°		
Latitude:	1541584, 985929	**Longitude:**	845391, 489866
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-118	**PID Reading:**	0.0
Associated Site Feature:	South Perc Pond	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: Brown Sand and Gravel; loose, wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-119-50-0-0.5 **Sample Time:** 0820

Date: 07/12/16 **Sampler:** SVV

Weather: partly cloudy, 50°F

Latitude: 1541473.6181 **Longitude:** 845283.9752

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0-0.5

Boring ID: CFSB-119 **PID Reading:** 0.0

Associated Site Feature: South Percolation Ponds **Within Site Feature (Y/N):** N

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f. SAND with little silt, little m-c gravel, trace robbles, moist, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-119-SO-0.5-2	**Sample Time:**	0830
Date:	~~07/12~~ 7/12/16	**Sampler:**	SW
Weather:	partly cloudy, 50°F		
Latitude:	1541473.6181	**Longitude:**	845283.9752
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-119	**PID Reading:**	0.1
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Light brown f. SAND with little silt, ~~little m-c gr~~ (SW) trace cobbles, trace f-c gravel, moist, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-119-SO-10-12	**Sample Time:**	0845
Date:	7/12/16	**Sampler:**	SW
Weather:	partly cloudy, 50°F		
Latitude:	1541473.6181	**Longitude:**	845283.9752
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-119	**PID Reading:**	0.2
Associated Site Feature:	South Percolation Ponds	**Within Site Feature (Y/N):**	N

Grab [X] **Composite** [ ]

Visual Observations: Brown f SAND with some f-c gravel, little cobbles, trace silt, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.00014002
Sample ID:	CFSB-120-50-0-0.5	**Sample Time:**	0930
Date:	5-18-16	**Sampler:**	Mason
Weather:	pt. cloudy 65F		
Latitude:	840683.272430	**Longitude:**	1546594.247014
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-120	**PID Reading:**	0.7 ppm
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: sand and gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

PID = 0.7 ppm

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-120-SO-0.5-2

Sample Time: 0940

Date: 5-18-16

Sampler: Mason

Weather: pt. cloudy 65°F

Latitude: 840683.272430

Longitude: 1546594.247014

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0.5-2

Boring ID: CFSB-120

PID Reading: 1.9 ppm

Associated Site Feature: Background Area

Within Site Feature (Y/N): Y

Grab [X]

Composite [ ]

Visual Observations: gray-brown loam

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

PID = 1.9 ppm

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-120-SO-10-12	**Sample Time:**	1000
Date:	5-18-16	**Sampler:**	Mason
Weather:	pt. cloudy 65°F		
Latitude:	840683.272430	**Longitude:**	1546594.247014
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-120	**PID Reading:**	0.3 ppm
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: clayey silt

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-121-SO-0-0.5

Sample Time: 1452

Date: 5-18-16

Sampler: Mason

Weather: 70F clear

Latitude: ~~840611.241544~~ 840605.989643

Longitude: ~~1544~~ 1544793.201211

Coordinate system: ~~840~~ SM MT State Plane

Sample Interval (ft-bls): 0-0.5

Boring ID: CFSB-121

PID Reading: 3.0 ppm

Associated Site Feature: Background Area

Within Site Feature (Y/N): Y

Grab ☑ **Composite** ☐

Visual Observations: loam topsoil

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	✓
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

duplicate
CFSB-DUP1-SO
@ 1455 hrs

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-121-S0-0.5-2	**Sample Time:**	1500
Date:	5-18-16	**Sampler:**	Mason
Weather:	70F clear		
Latitude:	840605.989643	**Longitude:**	1544793.201211
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-121	**PID Reading:**	0.5 ppm
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y
	Grab ✓	**Composite** ☐	

Visual Observations: well graded fine-coarse sand

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	✓
Matrix Spike Duplicate	✓

Additional Notes:

MS @ 1503

MSD @ 1510

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001 Y 002
Sample ID:	CFSB-121-SO-10-12	Sample Time:	1515
Date:	5-18-16	Sampler:	Mason
Weather:	70F clear		
Latitude:	840605.989643	Longitude:	1544793.201211
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-121	PID Reading:	0.3
Associated Site Feature:	Background Area	Within Site Feature (Y/N):	Y

Grab ☑ Composite ☐

Visual Observations: sand & gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-122-50-0-0.5	**Sample Time:**	1130
Date:	5-19-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	841159.223032	**Longitude:**	1546590.870565
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-122	**PID Reading:**	0.0
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: moist silt loam

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-122-SO-0.5-2	**Sample Time:**	1140
Date:	5-19-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	841159.223032	**Longitude:**	1546590.870565
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-122	**PID Reading:**	0.0
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: moist to wet silt & fine sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-122-SO-10-12	**Sample Time:**	1155
Date:	5-19-16	**Sampler:**	MASON
Weather:	cloudy 55F		
Latitude:	841159.223032	**Longitude:**	1546590.870565
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-122	**PID Reading:**	0.4
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab ✓ **Composite** ☐

Visual Observations: wet sand & gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-123-50-0-0.5	**Sample Time:**	0955
Date:	5-19-16	**Sampler:**	Mason
Weather:	cloudy 55F		
Latitude:	839811.841109	**Longitude:**	1545114.976564
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-123	**PID Reading:**	1.5
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: loamy topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-123-SO-0.5-2	**Sample Time:**	1005
Date:	5-19-16	**Sampler:**	Mason
Weather:	cloudy 55F		
Latitude:	839811.841109	**Longitude:**	1545114.976564
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-123	**PID Reading:**	0.3
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-123-SO-10-12	**Sample Time:**	1020
Date:	5-19-16	**Sampler:**	Mason
Weather:	cloudy 55F		
Latitude:	839811.841109	**Longitude:**	1545114.976564
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-123	**PID Reading:**	0.8
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: gravel w/ sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-124-SO-0-0.5	**Sample Time:**	0825
Date:	5-19-16	**Sampler:**	Mason
Weather:	cloudy 14. rain 50F		
Latitude:	839278.340671	**Longitude:**	1544762.169064
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFSB-124	**PID Reading:**	4.5
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: loamy topsoil

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-124-SO-0.5-2	**Sample Time:**	0830
Date:	5-19-16	**Sampler:**	Mason
Weather:	cloudy lt. rain 50F		
Latitude:	839278.340671	**Longitude:**	1544762.169064
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-124	**PID Reading:**	2.8
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y
	Grab ☑	**Composite** ☐	

Visual Observations: silt & sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-124-SO-10-12	**Sample Time:**	0855
Date:	5-19-16	**Sampler:**	Mason
Weather:	cloudy lt. rain, 50F		
Latitude:	839278.340671	**Longitude:**	1544762.169064
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-124	**PID Reading:**	2.3
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	Y

Grab ☑ **Composite** ☐

Visual Observations: sandy gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-125-50-0-0.5	Sample Time:	1310
Date:	5-18-16	Sampler:	Mason
Weather:	70F clear		
Latitude:	840582.425440	Longitude:	154294.873687
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-125	PID Reading:	1.9 ppm
Associated Site Feature:	Background Area	Within Site Feature (Y/N):	Yes

Grab ☑ Composite ☐

Visual Observations: loam topsoil

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-125-SO-0.5-2

Sample Time: 1330

Date: 5-18-16

Sampler: Mason

Weather: 70F clear

Latitude: 840582.425440

Longitude: 154294.873687

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0.5-2

Boring ID: CFSB-125

PID Reading: 22 ppm

Associated Site Feature: Background Area

Within Site Feature (Y/N): Yes

Grab ✓

Composite ☐

Visual Observations: sand & gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC
Project Number: 2476.0001 Y002
Sample ID: CFSB-125-SO-10-12
Sample Time: 1350
Date: 5-18-16
Sampler: Mason
Weather: 70F clear
Latitude: 840582.425440
Longitude: 154294.873687
Coordinate system: MT State Plane
Sample Interval (ft-bls): 10-12
Boring ID: CFSB-125
PID Reading: 1.3 ppm
Associated Site Feature: Background Area
Within Site Feature (Y/N): Y

Grab ☑ **Composite** ☐

Visual Observations: sand with gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y0002

Sample ID: CFSB-126-SO-0-0.5

Sample Time: 1200

Date: 5-18-16

Sampler: Mason

Weather: 65F clear

Latitude: 840588.057028

Longitude: 1545744.272977

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0-0.5

Boring ID: CFSB-126

PID Reading: 1.1 ppm

Associated Site Feature: Background Area

Within Site Feature (Y/N): Yes

Grab [✓]

Composite [ ]

Visual Observations: loam Topsoil

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-126-SO-0.5-2	Sample Time:	1220
Date:	5/18/16	Sampler:	Mason
Weather:	65F clear		
Latitude:	840588.057028	Longitude:	1545744.272977
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-126	PID Reading:	0.8 ppm
Associated Site Feature:	Background Area	Within Site Feature (Y/N):	Yes
	Grab ✓		Composite ☐

Visual Observations: sandy gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-126-SO-10-12	Sample Time:	1230
Date:	5-18-16	Sampler:	Mason
Weather:	65F clear		
Latitude:	840588.057028	Longitude:	1545744.272977
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-126	PID Reading:	1.0 ppm
Associated Site Feature:	Background Area	Within Site Feature (Y/N):	Yes

Grab [✓] Composite [ ]

Visual Observations: sand with gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476-0001Y002
Sample ID:	CFSB-127-SO-0-0.5	Sample Time:	1050
Date:	5-18-16	Sampler:	Mason
Weather:	65F clear		
Latitude:	840604.283159	Longitude:	1546107.669328
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-127	PID Reading:	0.3
Associated Site Feature:	Background Area	Within Site Feature (Y/N):	~~YES~~
	Grab ✓	Composite	☐

Visual Observations: loam w/ gravel & roots

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-127-SO-0.5-2	Sample Time:	1100
Date:	5-18-16	Sampler:	Mason
Weather:	65F clear		
Latitude:	840604.283159	Longitude:	1546107.669328
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-127	PID Reading:	1.4
Associated Site Feature:	Background Area	Within Site Feature (Y/N):	YES
	Grab ✓		Composite ☐

Visual Observations: Sandy gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-127-SO-10-12	**Sample Time:**	1120
Date:	5-18-16	**Sampler:**	Mason
Weather:	GSF clear		
Latitude:	840604.283159	**Longitude:**	1546107.669328
Coordinate system:	MT State Plane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-127	**PID Reading:**	0.6
Associated Site Feature:	Background Area	**Within Site Feature (Y/N):**	yes

Grab ☑ **Composite** ☐

Visual Observations: brown sandy gravel

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476

Sample ID: CFSB-128 - SO - 0-0.5

Sample Time: 1450

Date: 5/24/16

Sampler: SW

Weather: overcast, 55°F

Latitude: 842932.8459

Longitude: 1542765.9849

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0-0.5

Boring ID: CFSB-128

PID Reading: 0.1

Associated Site Feature: Rectifier Yard

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Dark brown to black f-m SAND w/ some gravel, trace cobbles

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC

Project Number: 2476.0001Y002

Sample ID: CFSB-128-SO-0.5-2

Sample Time: 1500

Date: 5/24/16

Sampler: SW

Weather: overcast, 55° F

Latitude: 842932.8459

Longitude: 1542765.9849

Coordinate system: MT State Plane

Sample Interval (ft-bls): 0.5-2

Boring ID: CFSB-128

PID Reading: 0.0

Associated Site Feature: Rectifier Yards

Within Site Feature (Y/N): N

Grab [X]

Composite [ ]

Visual Observations: Brown fm SAND w/ some gravel, little cobbles, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.00014002
Sample ID:	CFSB-125 -SO-10-12	Sample Time:	1515
Date:	5/24/16	Sampler:	SW
Weather:	overcast, 55°F		
Latitude:	842932.8459	Longitude:	1542765.9849
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-125	PID Reading:	0.1
Associated Site Feature:	Rectifier Yards ~~Gray GRAVEL~~ SW	Within Site Feature (Y/N):	N
	Grab [X]	Composite [ ]	

Visual Observations: Gray GRAVEL w/ little cobbles, trace crushed rock, f-c sand

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001 Y002
Sample ID:	CFSB-129-SO-0-0.5	Sample Time:	1530
Date:	5/24/16	Sampler:	SW
Weather:	cloudy, 60° F		
Latitude:	844014.7017	Longitude:	1542661.3631
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFSB-129	PID Reading:	0.1
Associated Site Feature:	Rectifier Yard	Within Site Feature (Y/N):	N

Grab [X] Composite [ ]

Visual Observations: Brown m-c SAND w/ some gravel, trace silt, few cobbles, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.00014002
Sample ID:	CFSB-129-SO-0.5-2	Sample Time:	1540
Date:	5/24/16	Sampler:	SW
Weather:	Cloudy, 60°F		
Latitude:	844014.7017	Longitude:	1542661.3631
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	0.5-2
Boring ID:	CFSB-129	PID Reading:	0.1
Associated Site Feature:	Rectifier Yard	Within Site Feature (Y/N):	N

Grab [X] Composite [ ]

Visual Observations: Brown m-c SAND w/ some gravel, trace silt, few cobbles, moist

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFSB-129-SO-10-12	Sample Time:	1600
Date:	5/24/16	Sampler:	SW
Weather:	cloudy, 60° F		
Latitude:	844014.7017	Longitude:	1542661.3631
Coordinate system:	MT State Plane	Sample Interval (ft-bls):	10-12
Boring ID:	CFSB-129	PID Reading:	0.1
Associated Site Feature:	Rectifier Yard	Within Site Feature (Y/N):	N
	Grab [X]	Composite [ ]	

Visual Observations: Brown to gray GRAVEL w/ some cobbles, with some f-c SAND, dry

Laboratory Name: Test America

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-130-SO-0.5-2	**Sample Time:**	1250
Date:	6/17/16	**Sampler:**	SW
Weather:	Clear, 55°F		
Latitude:	See notes below	**Longitude:**	
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-130	**PID Reading:**	1.2
Associated Site Feature:	Main Plant/Cathode Soaking Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Brown m. GRAVEL w/ f-c sand, dry to moist, little cobbles, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Boring Located approximately 18' South of N-Wall of main plant, and approximately 6' west of bay door/entry

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-#130-50-10-12	**Sample Time:**	1300
Date:	6/17/16	**Sampler:**	SW
Weather:	Clear, 55° F		
Latitude:	See notes below	**Longitude:**	
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-130	**PID Reading:**	≤10
Associated Site Feature:	Main Plant/Acetone Soaking Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown c. GRAVEL with m-c sand, some cobbles, little silt, moist to wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Boring located ~18' South of N. Wall of Main Plant and ~6' West of bay door lenty

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-131-~~0.5~~ SO-0.5-2	**Sample Time:**	940
Date:	6/17/16	**Sampler:**	SW
Weather:	Clear, 40°F		
Latitude:	See notes below	**Longitude:**	
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2
Boring ID:	CFSB-131	**PID Reading:**	0.5
Associated Site Feature:	Main Plant/Cathode Soaking Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Dark brown m-c GRAVEL w some f-c sand, little cobbles, trace silt little black staining

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Boring located approximately 18' South of the N. wall of the Main Plant, and approximately 4' East of the Bay Door/ Entry

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-131-SO-10-12	**Sample Time:**	1010
Date:	6/17/16	**Sampler:**	SW
Weather:	clear, 60°F		
Latitude:	See notes below	**Longitude:**	
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	
Boring ID:	CFSB-131	**PID Reading:**	10.6
Associated Site Feature:	Main Plant/Cathode Soaking Pit	**Within Site Feature (Y/N):**	Yes
Grab	X	**Composite**	

Visual Observations: Brown m-c GRAVEL w/ m-c Sand, little cobbles, some black staining

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Boring located ~18' S. of N. Wall of Main Plant, and ~4' E. of Bay Door / Entry

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-131-SO-18-20 **Sample Time:** 1050

Date: 6/17/16 **Sampler:** SW

Weather: clear, 60° F

Latitude: See notes below **Longitude:**

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 18-20

Boring ID: CFSB-131 **PID Reading:** 395

Associated Site Feature: Main Plant/Cathode Soaking Pit **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Black f-c SAND w/ some m-c gravel, little cobbles, thick/sticky residue, odor

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sample collected from area of visually impacted material

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-131-SO-22-23	**Sample Time:**	1120
Date:	6/17/16	**Sampler:**	SW
Weather:	clear, 60°F		
Latitude:	See notes below	**Longitude:**	
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	22-23
Boring ID:	CFSB-131	**PID Reading:**	2.9
Associated Site Feature:	Main Plant/Cathode Soaking Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Brown m-c SAND, w/ some m-c gravel, little cobbles, trace crushed rock, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sample collected below area of visually impacted material

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-132 -SO-0.0-0.5	**Sample Time:**	0932
Date:	6/3/2016	**Sampler:**	CA
Weather:	Partly Cloudy 63°		
Latitude:	1547500.041058	**Longitude:**	839761.996899
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.0-0.5
Boring ID:	CFSB-132	**PID Reading:**	0.0
Associated Site Feature:	Delbom and Cedar Creek	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown fn-cr Sand + Gravel, little silt moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-132-50-0.5-2.0	**Sample Time:**	9:45
Date:	6/3/2016	**Sampler:**	CA
Weather:	Partly Cloudy 63°		
Latitude:	1547500.041058	**Longitude:**	839761.996894
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2.0
Boring ID:	CFSB-132	**PID Reading:**	0.2
Associated Site Feature:	Delbon and Cedar Creek	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Silt brown, some clay, trace fine sand overlying Brown fine-c sand & gravel moist to wet impact trace root material

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-132 -SO-10-12	**Sample Time:**	10:05
Date:	6/3/2016	**Sampler:**	CM
Weather:	Partly cloudy 63°		
Latitude:	1547500.041058	**Longitude:**	839761.996894
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-132	**PID Reading:**	0.0
Associated Site Feature:	Delbarn and Cedar Creek	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Gray fn-cr Sand + Gravel, some silt trace clay wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSB-133-SO-0.0-0.5 **Sample Time:** 10:30

Date: 6/3/2016 **Sampler:** CA

Weather: Partly Cloudy 67°

Latitude: 1547425.051214 **Longitude:** 839710.914049

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** 0.0-0.5

Boring ID: CFSB-133 **PID Reading:** 0.0

Associated Site Feature: Delbom & Cedar Creek **Within Site Feature (Y/N):** Y

Grab [X] **Composite** [ ]

Visual Observations: Brown Silt, trace fine sand & clay moist trace plant matter

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-133-SO-0.5-2.0	**Sample Time:**	10:45
Date:	6/3/2016	**Sampler:**	CA
Weather:	Partly Cloudy 67°		
Latitude:	1547425.051214	**Longitude:**	839710.914049
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0.5-2.0
Boring ID:	CFSB-133	**PID Reading:**	0.0
Associated Site Feature:	Delbom + Cedar Creek	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Silt Brown to tan, little fn Sand to Clay, with interbedded 2" lenses of fn-cr Sand & Gravel Brown moist to wet in part

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSB-133 - SO-10-12	**Sample Time:**	1107
Date:	6/3/2016	**Sampler:**	CA
Weather:	Partly cloudy 67°		
Latitude:	1547425.051214	**Longitude:**	839710.914049
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFSB-133	**PID Reading:**	0.0
Associated Site Feature:	Delbom + Cedar Creek	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Grg Silt, some Clay, stiff in pot overlying Grg Silt some fn-crg sand at fn-crsd wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-17-SO-0-0.5	**Sample Time:**	1600
Date:	08/25/2016	**Sampler:**	SW
Weather:	clear, 70°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFTP-17	**PID Reading:**	0.0
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown to dk. brown m-c SAND, some f-c gravel, loose, moist, trace cobbles, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP - 17 - SO - 2 - 4	Sample Time:	1610
Date:	08/25/16	Sampler:	SW
Weather:	clear, 70°F		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	2 - 4
Boring ID:	CFTP - 17	PID Reading:	0.0
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
	Grab [X]	Composite [ ]	

Visual Observations: Brown m-c SAND, some f-c gravel, loose, moist, trace cobbles, trace silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-17-SO-10-12	**Sample Time:**	1630
Date:	8/25/16	**Sampler:**	SW
Weather:	clear, 70°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFTP-17	**PID Reading:**	0.0
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown m-c SAND, little f-m gravel, some cobbles/boulders, trace silt, trace clay, moist, loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-18-SO-0-0.5	**Sample Time:**	1000
Date:	8/26/16	**Sampler:**	SVV
Weather:	clear, windy, 55°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFTP-18	**PID Reading:**	0.0
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Lt. brown m-c SAND, little silt, some f-c gravel, trace cobbles/boulders, moist, dense to 10.0 ft

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP-18-SO-2-4	Sample Time:	1010
Date:	8/26/16	Sampler:	SW
Weather:	clear, windy, 55°F		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	2-4
Boring ID:	CFTP-18	PID Reading:	0.0
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
	Grab [X]	Composite [ ]	

Visual Observations: Lt. brown m-c SAND, little silt, some f-c gravel, trace cobbles/ boulders, moist, dense to loose

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-18-SO-10-12	**Sample Time:**	1030
Date:	8/26/16	**Sampler:**	SW
Weather:	clear, windy, 55°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFTP-18	**PID Reading:**	0.0
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: L. brown to gray C. SAND, some m-c gravel, little cobbles/ boulders, little clay, dense, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-19-SO-0-0.5	**Sample Time:**	830
Date:	8/25/16	**Sampler:**	SW
Weather:	windy, overcast, 70°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFTP-19	**PID Reading:**	
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: lt. brown f-m SAND, little organics, little silt, little f-m gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP-19-SO-2-4	Sample Time:	845
Date:	8/25/16	Sampler:	SW
Weather:	windy, overcast, 70°F		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	2-4
Boring ID:	CFTP-19	PID Reading:	0.0
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
Grab	X	Composite	

Visual Observations: Brown f-m SAND with some m-c gravel, little cobbles, trace silt, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-19-SO-10-12	**Sample Time:**	900
Date:	8/25/16	**Sampler:**	SW
Weather:	windy, overcast, 70°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFTP-19	**PID Reading:**	0.1
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Lt. brown f. SAND, trace silt, trace cobbles/boulders, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-20-SO-0-0.5	**Sample Time:**	1000
Date:	8/25/16	**Sampler:**	SW
Weather:	windy, overcast, 50°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFTP-20	**PID Reading:**	0.2
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Brown f. SAND, little silt, little organics, little f-m gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-20-SO-2-4	**Sample Time:**	1010
Date:	8/25/16	**Sampler:**	SW
Weather:	windy, overcast, 50°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	2-4
Boring ID:	CFTP-20	**PID Reading:**	0.1
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f-m SAND with some silt/clay, little gravel, trace cobbles, dense, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP - 20 - 10-12	**Sample Time:**	1030
Date:	8/25/16	**Sampler:**	SW
Weather:	windy, overcast, 50°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFTP - 20	**PID Reading:**	0.3
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
Grab	X	**Composite**	

Visual Observations: Brown to gray m-c SAND, little clay, some cobbles/boulders, little m-c gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-21-S0-0-0.5	**Sample Time:**	1110
Date:	8/25/16	**Sampler:**	SW
Weather:	overcast, windy, 55°		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	0-0.5
Boring ID:	CFTP-21	**PID Reading:**	0.0
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown f. SAND, little silt, little organics, little f-m gravel, loose, dry

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP-21-SO-2-4	Sample Time:	1130
Date:	8/25/16	Sampler:	SW
Weather:	windy, overcast, 55°		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	2-4
Boring ID:	CFTP-21	PID Reading:	0.2
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
	Grab [X]	Composite [ ]	

Visual Observations: Brown f SAND, little silt, some f-c gravel, trace cobbles, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-21-SO-10-12	**Sample Time:**	1200
Date:	8/25/16	**Sampler:**	SW
Weather:	overcast, windy, 55°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10 - 12
Boring ID:	CFTP - 21	**PID Reading:**	0.3
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown to gray m-c SAND, little clay, some cobbles / boulders, little m-c gravel, loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP-22-SO-0-0.5	Sample Time:	1240
Date:	8/25/16	Sampler:	SW
Weather:	overcast, windy 60°F		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFTP-22	PID Reading:	0.3
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
	Grab [X]	Composite	[ ]

Visual Observations: Brown to dk brown f. SAND and SILT, little clay, little f-m gravel, loose, moist, trace cobbles

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-22-SO-2-4	**Sample Time:**	1250
Date:	8/25/16	**Sampler:**	SW
Weather:	overcast, windy, 60°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	2-4
Boring ID:	CFTP-22	**PID Reading:**	0.2
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown m-c SAND, some m-c gravel, little cobbles/boulders, little silt, loose, moist to wet

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-22-SO-10-12	**Sample Time:**	1310
Date:	08/25/2016	**Sampler:**	SVV
Weather:	overcast, windy, 60°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFTP-22	**PID Reading:**	0.1
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Lt. brown f. SAND and SILT, some c. gravel, some cobbles/boulders, dense, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP-23-30-0-0.5	Sample Time:	840
Date:	8/26/16	Sampler:	SW
Weather:	overcast, windy, 50°F		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	0-0.5
Boring ID:	CFTP-23	PID Reading:	0.0
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
	Grab [X]	Composite [ ]	

Visual Observations: Brown f. SAND w/little m. gravel, little silt/clay, little organics (roots, etc) loose, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	Project Number:	2476.0001Y002
Sample ID:	CFTP - 23 - SO - 2-4	Sample Time:	900
Date:	8/26/16	Sampler:	SW
Weather:	overcast, windy, 50°F		
Latitude:	GPS	Longitude:	GPS
Coordinate system:	MT StatePlane	Sample Interval (ft-bls):	2-4
Boring ID:	CFTP - 23	PID Reading:	0.1
Associated Site Feature:	Borrow Pit	Within Site Feature (Y/N):	Y
	Grab [X]	Composite [ ]	

Visual Observations: lt. brown c. SAND, some fc gravel, little cobbles, trace boulders, little clay, trace silt, dense, moist

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

CFTP - DUP 24-SO

@ 0905

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFTP-23-SO-10-12	**Sample Time:**	910
Date:	8/26/16	**Sampler:**	SVV
Weather:	overcast, windy, 50°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	10-12
Boring ID:	CFTP-23	**PID Reading:**	0.1
Associated Site Feature:	Borrow Pit	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Lt brown c. SAND, some f-c gravel, little cobbles/boulders, little clay, moist, dense to 100 cc

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	X
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-14-16 **Sample Time:** 1330

Weather: 55° lt. rain **Sampler:** Mason

Sample ID: CF155-001-50-0-0.5

Decision Unit #: 1

Sample Interval: 0 - 0.5

Laboratory Name: TestAmerica

General Observations about DU: Topsoil, brown-black, organic rich silt sand loam w/ gravel. Black carbon B1 & B6 & D8; silver aluminum C7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-14-16 **Sample Time:** 1335

Weather: 55° lt. rain **Sampler:** Mason

Sample ID: CFISS-001-SO-0.5-2

Decision Unit #: 1

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: ~~Topsoil gravelly loam, brown~~ Sm Brown sand & gravel w/ occasional clays; silver aluminum in C7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 1 **Date:** 6-14-16

Sample Interval: 0 - 0.5

Sampler: Mason

Sample Observations/Notes:

A1	Brown sand & ✓	C1	✓
A2	✓	C2	
A3	Brown sand + gravel, roots	C3	✓
A4	✓	C4	✓
A5	✓	C5	✓
A6	✓	C6	✓
A7	✓	C7	silver aluminum chunk + black carbon
A8	✓ sand gravel clay	C8	✓
B1	Sandy gravel - black carbon organic	D1	✓
B2	✓	D2	✓
B3	✓	D3	
B4	✓	D4	✓
B5	✓	D5	✓
B6	✓ black organic / carbon	D6	✓
B7	✓	D7	
B8	✓	D8	loam & black carbon

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CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 1 **Date:** 6-14-16

Sample Interval: 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

A1	✓	C1	✓
A2	✓	C2	
A3	Brown sand + gravel	C3	
A4	✓	C4	
A5	✓	C5	
A6	✓	C6	
A7	✓	C7	silver aluminum
A8	✓ sand gravel clay	C8	
B1	✓	D1	
B2	✓	D2	
B3	✓	D3	
B4	✓	D4	
B5	✓	D5	
B6	✓	D6	
B7	✓	D7	
B8	✓	D8	

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-14-16 **Sample Time:** 1615

Weather: rain 55° **Sampler:** Mason

Sample ID: CF155-002-50-0-0.5

Decision Unit #: 2

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown-black silt/loam with gravel; some black carbon (A1, A4, A6, A8, C1, C6, C7, D5, D6)

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-14-16	**Sample Time:**	1625
Weather:	rain 55°	**Sampler:**	Mason
Sample ID:	CF155-002-50-0.5-2		
Decision Unit #:	2		
Sample Interval:	0.5 - 2		
Laboratory Name:	TestAmerica		

General Observations about DU: Brown - black Sand and gravel with silt and clay; Black carbon (A8, B3, C1, C2, C3, C4, C6, C7, D5, D6)

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 2 **Date:** 6-14-16

Sample Interval: 0 - 0.5 ; 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	Black carbon	—	C1	black carbon	black carbon
A2	—	—	C2	SAA	SAA
A3	—	—	C3	SAA	SAA
A4	Black carbon	—	C4	SAA	SAA
A5	—	—	C5	—	—
A6	Black carbon	—	C6	black carbon	~~SAA~~ black carbon
A7	—	—	C7	black carbon	black carbon
A8	Black carbon	Black not carbon	C8	—	—
B1	—	—	D1	—	—
B2	—	—	D2	—	—
B3	—	black carbon	D3	—	—
B4	—	—	D4	—	—
B5	—	—	D5	black carbon	black carbon
B6	—	—	D6	SAA	SAA
B7	—	—	D7	—	—
B8	—	—	D8	—	—

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-19-16 **Sample Time:** 0924

Weather: Sunny 65°F **Sampler:** GD

Sample ID: CFI55-002-SO-0-0.5 (re-sample)

Decision Unit #: 2

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill: Brown to black Gravel, sand, silt; dry to moist; black carbon as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sample.

Weight 1,430g

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-19-16 **Sample Time:** 0930

Weather: Sunny 65°F **Sampler:** GD

Sample ID: CFISS-002-SO-0.5-2 (resample)

Decision Unit #: 2

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil/fill: Brown to black Gravel Sand, silt; dry to wet; black carbon as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sample

weight 1,396g

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CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 2 - Re-sample **Date:** 7-18-16 - Grid A
7-19-16 - B, C, D

Sample Interval: 0 - 0.5 & 0.5 - 2

Sampler: GD

Sample Observations/Notes:

0 - 0.5	0.5 - 2	0 - 0.5	0.5 - 2
A1 0-6"	6-20"	C1 0-6"	6-14"
A2 Black Carbon 0-6"	Black Carbon @ top 6-17"	C2 Black Carbon 0-6"	6-19"
A3 Black Carbon 0-6"	6-17"	C3 Black carbon 0-6"	6-15"
A4 0-6"	6-22"	C4 Black carbon 0-6"	6-15"
A5 0-6"	6-18"	C5 Black carbon 0-6"	6-21"
A6 0-6"	6-15"	C6 0-6"	6-19"
A7 0-6"	6-19"	C7 Black carbon 0-6"	6-19"
A8 Black carbon 0-6"	6-16"	C8 Black carbon 0-6"	6-22"
B1 0-6"	6-13"	D1 0-6"	6-19"
B2 0-6"	6-20"	D2 0-6"	6-18"
B3 0-6"	6-19"	D3 0-6"	6-22"
B4 0-6"	6-14"	D4 0-6"	6-14"
B5 0-6"	6-20"	D5 0-6"	6-19"
B6 0-6"	6-24"	D6 0-6"	Black Carbon 6-19"
B7 Black carbon 0-6"	6-22"	D7 0-6"	6-19"
B8 0-6"	6-17"	D8 0-6"	6-14"

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-15-16 **Sample Time:** 1110

Weather: Clear **Sampler:** Mason

Sample ID: CF155-003-50- 0-0.5

Decision Unit #: 3

Sample Interval: 0 - 0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil, brown-black loam with little gravel; trace black carbon in A1, A6, A7, C5, C7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-15-16 **Sample Time:** 1120

Weather: Clear **Sampler:** Mason

Sample ID: CF155-003-SO-0.5-2

Decision Unit #: 3

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Subsoil, Brown-gray Sand and gravel, some silt, trace clay, Trace black carbon in A1

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 3 **Date:** 6-15-16

Sample Interval: 0-0.5 ; 0.5-2

Sampler: Mason

Sample Observations/Notes:

	0-0.5'	0.5-2'		0-0.5'	0.5-2'
A1	Black carbon	trace Black carbon	C1		
A2	—	—	C2	—	—
A3	—	—	C3	—	—
A4	—	—	C4	—	—
A5	—	—	C5	black carbon	—
A6	Black carbon	—	C6		—
A7	Black carbon	—	C7	black carbon	—
A8	—	—	C8	—	—
B1	—	—	D1	—	—
B2	—	—	D2	—	—
B3	—	—	D3	—	—
B4	—	—	D4	—	—
B5	—	—	D5	—	—
B6	—	—	D6	—	—
B7	—	—	D7	—	—
B8	—	—	D8	—	—

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-15-16 **Sample Time:** 1450

Weather: Clear 60° **Sampler:** Mason

Sample ID: CF155-004-SO-0-0.5

Decision Unit #: 4

Sample Interval: 0 - 0.5

Laboratory Name: TestAmerica

General Observations about DU: Topsoil Dark brown loam little gravel and roots.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6/15/16 **Sample Time:** 1455

Weather: Clear 60° **Sampler:** Mason

Sample ID: CFISS-004-SO-0-0.5-Pb

Decision Unit #: 4

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Topsoil, Darkbrown loam, little gravel and roots

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	
Soil TAL Metals	
Soil TCL PCBs	
Soil TCL Pesticides	
Soil Total Cyanide	
Soil Fluoride	
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieved only

mass weight - 1655g

Sieved weight - 164g

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-15-16 **Sample Time:** 1500

Weather: Clear 60° **Sampler:** Mason

Sample ID: CF155-004-50-0.5-2

Decision Unit #: 4

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Subsoil Brown Sand and silt ~~some~~ little gravel trace clay.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 4 **Date:** 6-15-16

Sample Interval: 0 - 0.5 ; 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

	0 - 0.5	0.5 - 2		0 - 0.5	0.5 - 2
A1	—	—	C1	—	—
A2	—	—	C2	—	—
A3	—	—	C3	—	—
A4	—	—	C4	—	—
A5	—	—	C5	—	—
A6	—	—	C6	—	—
A7	—	—	C7	—	—
A8	—	—	C8	—	—
B1	—	—	D1	—	—
B2	—	—	D2	—	—
B3	—	—	D3	—	—
B4	—	—	D4	—	—
B5	—	—	D5	—	—
B6	—	—	D6	—	—
B7	—	—	D7	—	—
B8	—	—	D8	—	—

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-16-16	**Sample Time:**	0940
Weather:	Rain 50°	**Sampler:**	Mason
Sample ID:	CF155-005-50-0-0.5		
Decision Unit #:	5		
Sample Interval:	0-0.5'		
Laboratory Name:	TestAmerica		

General Observations about DU: Topsoil, Brown silt sand gravel with trace roots & clay

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

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CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-16-16	**Sample Time:**	0945
Weather:	Rain 50°	**Sampler:**	Mason
Sample ID:	CF155-005-S0-0.5-2		
Decision Unit #:	5		
Sample Interval:	0.5-2.0'		
Laboratory Name:	TestAmerica		

General Observations about DU: Subsoil; brown silt sand gravel with trace clay

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 5 **Date:** 6/15 + 6/16/16

Sample Interval: ~~0-5 in~~, 0-0.5, 0.5-2'

Sampler: Mason

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	—	—	C1	—	—
A2	—	—	C2	—	—
A3	—	—	C3	—	—
A4	—	—	C4	—	—
A5	—	—	C5	—	—
A6	—	—	C6	—	—
A7	—	—	C7	—	—
A8	—	—	C8	—	—
B1	—	—	D1	—	—
B2	—	—	D2	—	—
B3	—	—	D3	—	—
B4	—	—	D4	—	—
B5	—	—	D5	—	—
B6	—	—	D6	—	—
B7	—	—	D7	—	—
B8	—	—	D8	—	—

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-17-16 **Sample Time:** 1231

Weather: Clear 65°F **Sampler:** G. Davis

Sample ID: CFISS-006-SO-0-0.5

Decision Unit #: 006

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Dark brown to black sand f-c and silt some gravel; moist; often 1-2" root mat; black carbon material up to full 6"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Dup 1 time: 1233
Not on bottle
on bottle 1400

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-17-16 **Sample Time:** 1238

Weather: Clear 65°F **Sampler:** G. Davis

Sample ID: CF ISS-006-SO-0.5-2

Decision Unit #: 006

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: ~~Dark brown~~ GD Brown silt and sand f-c some gravel; moist to wet; occasional seams of black carbon material

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 006 **Date:** 6-~~16~~-16 17 GD

Sample Interval: 0 - 0.5 ; 0.5 - 2

Sampler: ~~Mason~~ G. Davis

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		Wet
A2			C2		
A3			C3		
✓ A4		No recovery + Did 2ND boring	C4		
✓ A5		No recovery + Did 2ND boring	C5		
A6			C6		
A7			C7		
A8			C8		wet, seams ~1" of black carbon
B1			D1		
B2	~2" black carbon appearing material		D2		
B3			D3		seam of black carbon ~1/4"
B4			D4		
B5			D5		
B6	6" black carbon material		D6		
B7			D7		
B8	6" black carbon coal tar odor		D8		

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-19-16 **Sample Time:** 1436

Weather: Sunny 80°F **Sampler:** GD

Sample ID: CFI SS-006-SO-0-0.5 (Resample)

Decision Unit #: ~~002~~ GD 006

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill: brown to black gravel, sand, silt; dry to moist; black carbon as noted; sometimes roots in top 1-2 inches.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sample

Weight - 1,288g

DUP 1

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-19-16 **Sample Time:** 1439

Weather: Sunny 80°F **Sampler:** GD

Sample ID: CFISS-006-SO-0.5-2 (Resample)

Decision Unit #: 006

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil/fill: Brown to black Sand, silt and gravel; dry to moist; black carbon as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	~~X~~ (PO)
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

Re-sample

Weight 1,394g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 006 : Re-Sample **Date:** 7-19-16

Sample Interval: 0-0.5 & 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-17"	C1	0-6"	6-23"
A2	0-6"	6-16"	C2	0-6"	6-24"
A3	0-6"	6-11"	C3	0-6"	6-17"
A4	0-6"	6-22"	C4	0-6"	6-19"
A5	0-6"	6-23"	C5	0-6"	Black Carbon 6-24"
A6	0-6"	6-12"	C6	0-6"	Black Carbon 6-16"
A7	0-6"	6-22"	C7	0-6"	Black Carbon 6-15"
A8	0-6"	6-19"	C8	0-6"	Black Carbon 6-24"
B1	Black Carbon 0-6"	6-17"	D1	0-6"	6-17"
B2	0-6"	Black Carbon 6-12"	D2	0-6"	6-20"
B3	0-6"	6-14"	D3	0-6"	6-16"
B4	0-6"	6-16"	D4	0-6"	6-17"
B5	0-6"	6-18"	D5	0-6"	6-16"
B6	Black Carbon 0-6"	Black Carbon 6-16"	D6	0-6"	6-22"
B7	0-6"	6-13"	D7	0-6"	6-15"
B8	0-6"	6-19"	D8	0-6"	6-12"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-17-16 **Sample Time:** 1602

Weather: P. Cloudy 70°F **Sampler:** GD

Sample ID: CFISS-007-SO-0-0.5

Decision Unit #: 7

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Dark brown Sand f-c some silt some gravel; moist to wet; roots in top 1-2"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-17-16 **Sample Time:** 1605

Weather: P. Cloudy 70°F **Sampler:** GD

Sample ID: CFI55-007-SO-0.5-2

Decision Unit #: 7

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown Sand f-c and gravel little silt; moist to wet; occasional black carbon clasts.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 7 **Date:** 6-17-16

Sample Interval: 0.-0.5 & 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		
A2		Glasts of iron oxide material up to 1/4"	C2		
A3	2" chunck of rubber hose		C3		
A4			C4		2" of black sandy carbon material
A5		Carbon clast 2"	C5		
A6		Carbon clast 2"	C6		
A7			C7		wet
A8			C8		
B1			D1		
B2			D2		
B3			D3	wet	
B4			D4		
B5			D5	wet	GD ~~wet~~
B6			D6		wet
B7			D7		
B8			D8		

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-18-16 **Sample Time:** 1120

Weather: P. Cloudy 60°F **Sampler:** GD

Sample ID: CFISS-008-SO-0-0.5

Decision Unit #: 008

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Sand f-c; some gravel; some silt; wet to moist; roots in top 1" typical; trace of debris

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-18-16 **Sample Time:** 1130

Weather: P. cloudy 60°F **Sampler:** GD

Sample ID: CFISS-008-SO-0.5-2

Decision Unit #: 008

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown Gravel, some sand f-c, little silt; moist to wet; trace of debris

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 008 **Date:** 6-18-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		
A2			C2		
A3			C3		
A4			C4	1/4" piece of d. gray metallic sand	
A5			C5		Piece of debris - sheet metal
A6			C6		
A7			C7		
A8			C8		
B1			D1	wet	
B2			D2	wet	
B3	gray metallic f. sand below topsoil, wet		D3		
B4			D4		
B5			D5		Wet
B6	wet		D6	wet; few small < 1/4" black fragments 1/2" piece of glass	few small < 1/4" black fragments, wet
B7	wet		D7		
B8			D8	wet	

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-20-16 **Sample Time:** 1035

Weather: clear 65° **Sampler:** Mason

Sample ID: CF155-008-SO-0-0.5

Decision Unit #: 008

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Silt sand and gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	Y
Soil TAL Metals	Y
Soil TCL PCBs	Y
Soil TCL Pesticides	Y
Soil Total Cyanide	Y
Soil Fluoride	Y
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sample

weight - 1,503g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-20-16 **Sample Time:** 1040

Weather: clear 65° **Sampler:** Mason

Sample ID: CF155-008-SO-0.5-2'

Decision Unit #: 008

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Silt sand and gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sample

weight 1,477g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 008 **Date:** 7-19-16 (Grid A) + 7-20-16 (Grid C, B, D)

Sample Interval: 0-0.5' + 0.5-2'

Sampler: GD (7/19) SM (7/20)

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-12"	C1	0-6"	6-18"
A2	0-6"	6-14"	C2	0-6"	6-24"
A3	0-6"	6-15"	C3	0-6"	6-18"
A4	0-6"	6-12"	C4	0-6"	6-18"
A5	0-6"	6-14"	C5	0-6"	6-18"
A6	0-6"	6-17"	C6	0-6"	6-18"
A7	0-6"	6-17"	C7	0-6"	6-15"
A8	0-6"	6-10"	C8	0-6"	6-21"
B1	0-6"	6-18"	D1	0-6"	6-15"
B2	0-6"	6-15"	D2	0-6"	6-18"
B3	0-6"	6-15"	D3	0-6"	6-24"
B4	0-6"	6-18"	D4	0-6"	6-18"
B5	0-6"	6-18"	D5	0-6"	6-15"
B6	0-6"	6-15"	D6	0-6"	6-15"
B7	0-6"	6-18"	D7	0-6"	6-15"
B8	0-6"	6-18"	D8	0-6"	6-15"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 07/26/2016 **Sample Time:** 1650

Weather: Sunny, 88°F **Sampler:** SW

Sample ID: CFISS-008-SO-0-0.5

Decision Unit #: 008

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Light brown to gray f SAND with little fm gravel, trace silt, trace brick fragments, loose, dry

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	✓
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,402 g

Resample (x2) due to FedEx error

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 07/26/2016 **Sample Time:** 1500

Weather: clear high 80°F **Sampler:** SW

Sample ID: CFISS-008-50-0.5-2

Decision Unit #: 008

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown to lt. gray f-m SAND with little silt, trace cobbles, little f-m gravel, loose, dry

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	✓
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Mass: 1,354 g

Resample (x2) due to FedEx error

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-22-16 **Sample Time:** 1340

Weather: clear 65° **Sampler:** Mason

Sample ID: CFISS-009-SO-0-0.5

Decision Unit #: 9

Sample Interval: 0 - 0.5

Laboratory Name: TestAmerica

General Observations about DU: Topsoil, Dark Brown silt loam some sand and gravel black carbon (charcoal) D3

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-22-16 **Sample Time:** 1345

Weather: clear 65° **Sampler:** MASON

Sample ID: CF ISS - 009 - SO - 0.5 - 2

Decision Unit #: 9

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Subsoil, brown silt sand gravel trace clay, Black carbon/charcoal C6, C7, D7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 9 **Date:** 6-22-16

Sample Interval: 0 - 0.5 ; 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	—	—	C1	—	
A2	—	—	C2	—	
A3	—	—	C3	—	
A4	—	—	C4	—	
A5	—	—	C5	—	
A6	—	—	C6	—	black gray carbon
A7	—	—	C7	—	black/gray carbon
A8	—	—	C8	—	
B1	—	—	D1	—	—
B2	—	—	D2	—	—
B3	—	—	D3	Black carbon/char	—
B4	—	—	D4	—	—
B5	—	—	D5	—	—
B6	—	—	D6	—	—
B7	—	—	D7	—	charcoal/burnt wood
B8	—	—	D8	—	—

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-22-16	**Sample Time:**	1100
Weather:	Clear 55°	**Sampler:**	Mason
Sample ID:	CFISS-010-50-0-0.5		
Decision Unit #:	10		
Sample Interval:	0-0.5		
Laboratory Name:	TestAmerica		

General Observations about DU: Dark brown topsoil; silt and sand; little-trace gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-22-16 **Sample Time:** 1110

Weather: Clear 55° **Sampler:** Mason

Sample ID: CFISS-010-SO-0.5-2.0

Decision Unit #: 10

Sample Interval: 0.5 - 2.0

Laboratory Name: TestAmerica

General Observations about DU: Brown Subsoil, Silt and sand, little gravel, trace clay

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 10 **Date:** 6-22-16

Sample Interval: 0 - 0.5 ; 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	✓	✓	C1		
A2	✓	✓	C2		
A3	✓	✓	C3		
A4	✓	✓	C4		
A5	✓	✓	C5		
A6	✓	✓	C6		
A7	✓	✓	C7		
A8	✓	✓	C8		
B1	✓	✓	D1		
B2	✓	✓	D2		
B3	✓	✓	D3		
B4	✓	✓	D4		
B5	✓	✓	D5		
B6	✓	✓	D6		
B7	✓	✓	D7		
B8	✓	✓	D8		

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-21-16 **Sample Time:** 1540

Weather: P. Cloudy 65°F **Sampler:** GD

Sample ID: CFISS-011-SO-0-0.5

Decision Unit #: 011

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Gravel; some Sand f-c; little silt; dry to moist; little roots in upper 1"; carbon residue in one boring

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-21-16 **Sample Time:** 1550

Weather: overcast, showers, 60°F **Sampler:** GD

Sample ID: CFISS-011-SO-0-0.5-Pb

Decision Unit #: 011

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown to black gravel, some sand f-c, little silt, dry to moist, little roots in upper 1", carbon residue in one boring

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	
Soil ~~TAL Metals~~ LEAD ONLY	X
Soil TCL PCBs	
Soil TCL Pesticides	
Soil Total Cyanide	
Soil Fluoride	
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

- LEAD SIEVED SAMPLE

mass weight: 1638 g

Sieved weight: 166 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-21-16 **Sample Time:** 1545

Weather: P. Cloudy 65°F **Sampler:** GD

Sample ID: CF ISS -011-SO-0.5-2

Decision Unit #: 011

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown Gravel and silt; some sand f-c; dry to ~~moist~~ wet GD;

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 11 **Date:** 6-21-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		
A2			C2		
A3		PID: 9.2 PPM Slight odor; silty	C3		
A4			C4		
A5			C5		
A6			C6		
A7			C7		
A8			C8		
B1			D1		
B2			D2		
B3			D3		
B4			D4		
B5			D5		
B6	Carbon residue <1"	~~Carbon residue~~ GD	D6		
B7		wet	D7		
B8			D8		

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-21-16 **Sample Time:** 1250

Weather: Overcast, showers, 60°F **Sampler:** GD

Sample ID: CF ISS-012-SO-0-0.5

Decision Unit #: 012

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown Gravel and sand f-c, trace silt; dry to wet; occasional debris and black carbon material

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-21-16 **Sample Time:** 1245

Weather: Overcast, showers 60°F **Sampler:** GD

Sample ID: CFISS-012-SO-0.5-2

Decision Unit #: 012

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Gravel and Sand f-c; little silt; dry to moist; usually roots in the upper 1"; occasional debris - black carbon, silvery metal

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	~~X~~ SW
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 012 **Date:** 6-21-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		
A2			C2		
A3			C3		
A4			C4		wet
A5			C5		
A6			C6		
A7			C7		
A8			C8		
B1			D1		4-5" black carbon material, coal tar odor
B2			D2		
B3	1" piece of silver metallic debris	1" piece of silver metallic debris	D3	~1/2" carbon material around 6" (0.5')	
B4			D4		wet
B5			D5		
B6			D6		
B7			D7		minor black carbon material, 1/4" piece brick
B8			D8		wet

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-20-16 **Sample Time:** 1625

Weather: Sunny 82°F **Sampler:** GD

Sample ID: CFISS-013-S0-0-0.5

Decision Unit #: 013

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Gravel and Sand f-c; little silt; dry to moist; trace roots in upper 1"; occasional debris, black and silver metallic

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6/20/16 **Sample Time:** 1635

Weather: Sunny 82°F **Sampler:** GD

Sample ID: CFISS-013-SO-0-0.5-Pb

Decision Unit #: 013

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Gravel and sand f-c, little silt

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	
Soil ~~TAL Metals~~ Lead only	X
Soil TCL PCBs	
Soil TCL Pesticides	
Soil Total Cyanide	
Soil Fluoride	
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead Sieved

Mass weight: 1,540g

Sieved weight: 225g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-20-16 **Sample Time:** 1630

Weather: Sunny 82°F **Sampler:** GD

Sample ID: CFI SS-013-SO-0.5-2

Decision Unit #: 013

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown to orange brown Gravel, some sand f-c, trace silt, dry to wet; occasional debris, black, silver metallic

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 013 **Date:** 6-20-16

Sample Interval: 0-0.5' + 0.5-2'

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		
A2			C2		
A3			C3		~4" black material at bottom, coal tar odor
A4			C4		
A5			C5		wet-black & orange f. grained
A6			C6	5" black granular material, coal tar odor	0.5-1.75 black material SAA; PID = 3.0ppm
A7			C7		0.2 Ambient
A8			C8		
B1			D1		
B2			D2		
B3	~1/2-1" of black material, coal tar odor	couple 1/2" pieces of metal debris	D3		
B4			D4		2" bolt
B5	Few <1/4 flecks of silver metallic debris	2" of silver, black & green dense debris	D5		
B6			D6		
B7			D7		
B8			D8		

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-20-16 **Sample Time:** 1200

Weather: Sunny 74°F **Sampler:** GD

Sample ID: CF ISS-014-SO-0-0.5

Decision Unit #: 014

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Sand f-c and gravel; little silt; moist to wet; occassional debris, silvery metallic, wood, brick-like; sometimes roots in upper 1"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved point 14C-3 a few feet north due to pallets.

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-20-16 **Sample Time:** 1208

Weather: Sunny 74°F **Sampler:** GD

Sample ID: CFISS-014-SO-0.5-2

Decision Unit #: 014

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Brown to black Gravel; some Sand f-c; little silt; moist to wet; occasional debris, black, iron oxide red, brick-like, silvery metallic

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved point 146-3 a few feet north due to pallets.

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 14 **Date:** 6/20/16

Sample Interval: 0-0.5' + 0.5-2'

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1			C1		
A2			C2		
A3			C3	Moved a few feet to the north due to palets	wet
A4			C4		wet
A5			C5		
A6	1" iron oxide material 2" piece of hard black material	2" iron oxide material	C6		wet
A7		3" layer of black and iron oxide red material - no odor	C7		wet
A8			C8		
B1	wet - wood debris	wet	D1		
B2			D2	silvery metallic sand sized to 1" flat pieces in upper 1' (0-1')	silvery metallic sand sized to 1" flat pieces from 0-1'
B3	wet	wet - 2" layer of black f. grained material at bottom	D3		
B4			D4	wet	
B5	1/2" of same material described 0.5-2' →	2" layer of orange semi-consolidated sand sized material (brick?)	D5		
B6			D6		wet
B7			D7		
B8	wet		D8		

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-18-16 **Sample Time:** 1550

Weather: P. Cloudy 70°F **Sampler:** GD

Sample ID: CFISS-015-SO-0-0.5

Decision Unit #: 15

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown Sand f-c and gravel; little silt; moist; sometimes roots in the top 1"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-18-16 **Sample Time:** 1555

Weather: P. cloudy 70°F **Sampler:** GD

Sample ID: CFISS-015-SO-0.5-2

Decision Unit #: 15

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Brown Gravel; some sand f-c; trace silt; moist to wet; occassional roots

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 015 **Date:** 6-18-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2	0-0.5	0.5-2
A1		1-2" layer black material	C1	
A2			C2	
A3			C3	
A4	Moved due to pile of pallets	wet; 4" black sandy layer - couple 1/2" pieces few 1/4" metallic pieces	C4	
A5			C5	
A6	1-2" layer of black and silver-white material, wet		C6	
A7	1" flat piece of debris - aluminum?		C7	
A8	Moved due to pile of pallets		C8	
B1		wet	D1	
B2			D2	
B3			D3	
B4		wet	D4	
B5			D5	
B6			D6	~8" brown silt and sand f.; trace gravel, wet
B7			D7	
B8	Piece of plastic sheeting		D8	

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-23-16 **Sample Time:** 1325

Weather: cloudy 55° **Sampler:** Mason

Sample ID: CF155-016-SO-0-0.5

Decision Unit #: 16

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Topsoil, abundant roots & organic matter, dk brown, silt sand gravel, black charcoal or carbon A1

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,387g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-23-16 **Sample Time:** 1330

Weather: cloudy 55° **Sampler:** Mason

Sample ID: CFISS-016-SO-0.5-2

Decision Unit #: 16

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Subsoil, brown silt sand gravel, black charcoal/carbon D7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight: 1.536g

Lab error - not analyzed

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-28-16 **Sample Time:** 1348

Weather: Sunny 80°F **Sampler:** GD

Sample ID: CFISS-016-SO-0.5-2

Decision Unit #: 016

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil; brown Gravel, Sand, silt; dry to moist

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sampled interval due to lab error.

Weight: 1,398g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 16 **Date:** 6-23-16

Sample Interval: 0 - 0.5 ; 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

			charcoal	842906.647657	1545257.180921
A1	0-6"	6-14", black	C1	0-6"	6-13"
A2	0-6"	6-10"	C2	0-6"	6-17"
A3	0-6"	6-10" recovery	C3	0-6"	6-18"
A4	0-6"	6-8"	C4	0-6"	6-13"
A5	—	—	C5	0-6"	6-15"
A6	0-6"	6-15"	C6	0-6"	6-14"
A7	—	11" recovery — 6"-11"	C7	0-6"	6-16"
A8	0-6"	6"-24"	C8	0-6"	6-16"
				~~x 842976.352555~~	~~y 1545273.564902~~ SM
B1	0-6"	6-14"	D1	0-6"	6-10"
				x 842976.352555	y 1545273.564902
B2	0-6"	6-11"	D2	0-6"	6-18"
				x 842927.582563	y 1545264.895944
B3	0-6"	6-14"	D3	0-6"	6-11"
B4	0-6"	6-7"	D4	0-6"	6-17"
B5	0-6"	6"-10"	D5	0-6"	6-15"
B6	0-6"	6-9"	D6	0-6"	6-16"
B7	0-6"	6-20"	D7	0-6"	6-14" black carbon/charcoal
B8	0-6"	6-7"	D8	0-6"	6-12"

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 016 **Date:** 6-28-16

Sample Interval: 0.5-2 only - re-do for lab

Sampler: GD

Sample Observations/Notes: 0.5-2 interval only

	moved due to access - drilled middle pt. of 3		moved due to slope
A1	6-14"	C1	6-11"
A2	6-19"	C2	6-13"
	Bored original GPS location		
A3	6-12"	C3	6-21"
	moved due to access		
A4	6-16"	C4	6-9"
A5	6-16"	C5	6-11"
A6	6-9"	C6	6-13"
	moved due to slope		
A7	6-11"	C7	6-19"
A8	6-14"	C8	6-12"
			Moved location
B1	6-18"	D1	6-16"
B2	6-14"	D2	6-13"
			moved due to slope and to match 6/23
B3	6-15"	D3 boring	6-17"
B4	6-16"	D4	6-16"
			moved due to slope and to match 6/23
B5	6-11"	D5 boring	6-15"
			moved due to slope and to match 6/23
B6	6-14"	D6 boring	6-18"
B7	6-14"	D7	6-11"
B8	6-20"	D8	6-14"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-23-16	**Sample Time:**	1550
Weather:	Clear 75°	**Sampler:**	Mason
Sample ID:	CFISS-~~016~~ 017-SO-0-0.5		
Decision Unit #:	17		
Sample Interval:	0-0.5		
Laboratory Name:	TestAmerica		

General Observations about DU: Soil, brown silt sand gravel with roots + organic matter; black root/charcoal/carbon in A4 & A7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight: 1,482

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-29-16 **Sample Time:** 1000

Weather: Clear 60° **Sampler:** Mason

Sample ID: CFISS-017-SO-0-0.5

Decision Unit #: 17

Sample Interval: 0 - 0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil, silt sand and gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-sample 0-0.5' only

Weight: 1,461 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-23-16 **Sample Time:** 1600

Weather: Clear 75° **Sampler:** Mason

Sample ID: CFISS-017-SO-0.5-2

Decision Unit #: 17

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Subsoil, brown silt sand gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Moved relocated C2, C3, C8 D2, D6 - see field data sheet for coordinates

weight: 1,618g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 17 **Date:** 6-23-16

Sample Interval: ~~0-5 cm~~ 0-0.5'; 0.5'-2'

Sampler: Mason

Sample Observations/Notes:

	0-0.5'	0.5-2'		0-0.5'	0.5-2'
A1	0-6"	6-21"	C1	0-6"	6-15"
A2	0-6"	6-8"	C2	X 843089.531793 0-6"	Y-1545265.357944 6-18"
A3	0-6"	6-15"	C3	843013.389249 0-6"	1545272.282544 6-17"
A4	0-6"	6-15" black carbon	C4	0-6"	6-17"
A5	0-6"	6-12"	C5	0-6"	6-8"
A6	0-6"	6-16"	C6	0-6"	6-18"
A7	0-6"	6-16" black root carbon	C7	0-6"	6-16"
A8	0-6"	6-15"	C8	X 843024.616490 0-6"	Y.1545258.910949 6-17"
B1	0-6"	6-21"	D1	0-6"	6-15"
B2	0-6"	6-21"	D2	X 843190.486039 0-6"	Y=1545254.946106 6-16"
B3	0-6"	6-18"	D3	0-6"	6-15"
B4	0-6"	6-18"	D4	0-6"	6-17"
B5	0-6"	6-19"	D5	0-6"	6-14"
B6	0-6"	6-21"	D6	X=843124.780369 0-6"	1545278.672729 6-19"
B7	0-6"	6-14"	D7	0-6"	6-17"
B8	0-6"	6-16"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 17 **Date:** 6-29-16

Sample Interval: 0-0.5 - resample

Sampler: Mason

Sample Observations/Notes: 100% recovery, - 0-0.5' in all

A1	—	C1	
A2	—	C2	—
A3	—	C3	—
A4	—	C4	—
A5	—	C5	—
A6	—	C6	—
A7	—	C7	—
A8	—	C8	—
B1	—	D1	—
B2	—	D2	—
B3	—	D3	—
B4	—	D4	—
B5	—	D5	—
B6	—	D6	—
B7	—	D7	—
B8	—	D8	—

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-24-16 **Sample Time:** 1315

Weather: 55° rain **Sampler:** Mason

Sample ID: CFISS-018-SO-0-0.5

Decision Unit #: 18

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil, brown silt sand and gravel w/ roots

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Relocated C6, C4, C7

1,505g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-24-16 **Sample Time:** ~~1330~~ 1320

Weather: 55° rain **Sampler:** Mason

Sample ID: CFISS-018-SO-0.5-2

Decision Unit #: 18

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Subsoil; brown silt sand gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

relocated C4, C6, C7

1,480 g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 18 **Date:** 6-24-16

Sample Interval: 0 - 0.5' ; 0.5 - 2'

Sampler: Mason

Sample Observations/Notes:

	0-0.5'	0.5-2'		0-0.5'	0.5-2'
A1	0-6"	6-11"	C1	0-6"	6-18"
A2	0-6"	6-18"	C2	0-6"	6-15"
A3	0-6"	6-18"	C3	0-6"	6-13"
A4	0-6"	6-18"	C4	X 843316.651219 0-6"	Y 1545188.162123 6-16"
A5	0-6"	6-17"	C5	0-6"	6-14"
A6	0-6"	6-15"	C6	X 843321.194155 0-6"	Y 1545204.185613 6-13"
A7	0-6"	6-18"	C7	X 843310.159442 0-6"	Y 1545161.462354 6-21"
A8	0-6"	6-18"	C8	0-6"	6-15"
B1	0-6"	6-21"	D1	0-6"	6-15"
B2	0-6"	6-15"	D2	0-6"	6-17"
B3	0-6"	6-17"	D3	0-6"	6-15"
B4	0-6"	6-17"	D4	0-6"	6-12"
B5	0-6"	6-18"	D5	0-6"	6-17"
B6	0-6"	6-17"	D6	0-6"	6-15"
B7	0-6"	6-19"	D7	0-6"	6-16"
B8	0-6"	6-18"	D8	0-6"	6-14"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-24-16 **Sample Time:** 1515

Weather: Rain 55° **Sampler:** Mason

Sample ID: CFISS-019-SO-0-0.5

Decision Unit #: 19

Sample Interval: 0 - 0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil; silt sand gravel; black carbon ~~B1, B5,~~ SM ~~B7~~, C7, D3

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

1,557 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-24-16 **Sample Time:** 1520

Weather: Rain 55° **Sampler:** Mason

Sample ID: CFISS-019-SO-0.5-2

Decision Unit #: 19

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Soil; silt sand gravel; black carbon in B1, B5, B7, C7, D3, D4, D5, D7, D8

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

1,543 g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 19 **Date:** 6-24-16

Sample Interval: 0-0.5; 0.5-2

Sampler: Mason

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-13"	C1	0-6"	6-15"
A2	0-6"	6-14"	C2	0-6"	6-19"
A3	0-6"	6-10"	C3	0-6"	6-16"
A4	0-6"	6-20"	C4	0-6"	6-18"
A5	0-6"	6-17"	C5	0-6"	6-15"
A6	0-6"	6-13"	C6	0-6"	6-17"
A7	0-6"	6-13"	C7	black carbon 0-6"	black carbon 6-16"
A8	0-6"	6-13"	C8	0-6"	6-17"
B1	0-6"	black carbon 6-16"	D1	0-6"	6-16"
B2	0-6"	6-15"	D2	0-6"	6-13"
B3	0-6"	6-15"	D3	black carbon 0-6"	black carbon 6-11"
B4	0-6"	6-11"	D4	0-6"	black carbon 6-20"
B5	0-6"	black carbon 6-15"	D5	0-6"	black carbon 6-15"
B6	0-6"	6-17"	D6	0-6"	6-16"
B7	0-6"	6-16" black carbon	D7	0-6"	black carbon 6-15"
B8	0-6"	6-15"	D8	0-6"	black carbon 6-18"

Preliminary - Under EPA and DEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-25-16 **Sample Time:** 1023

Weather: Overcast 55° F **Sampler:** GD

Sample ID: CFI55-020-S0-0-0.5

Decision Unit #: 020

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil; brown Gravel, sand, silt, black carbon as noted; minor roots

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,413g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-25-16 **Sample Time:** 1026

Weather: Overcast 55°F **Sampler:** GD

Sample ID: CF ISS-020-SO-0.5-2

Decision Unit #: 020

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil; brown Gravel, sand, silt; black Carbon as noted

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

weight: 1,562

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 020 **Date:** 6-25-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5'	0.5-2'		0-0.5'	0.5-2'
A1	0-6"	6-~~15~~ 14" GD	C1	0-6"	6-15"
A2	0-6"	6-18"	C2	0-6"	6-14"
A3	0-6"	6-12"	C3	0-6"	6-17"
A4	black carbon 0-6"	black carbon 6-15"	C4	0-6"	6-~~24~~ 21" GD
A5	0-6"	6-15"	C5	0-6"	6-15"
A6	0-6"	6-17"	C6	0-6"	6-15"
A7	Black carbon 0-6	6-14"	C7	0-6"	6-16"
A8	Black carbon 0-6"	Black Carbon 6-18"	C8	0-6"	6-18"
B1	0-6"	6-12"	D1	0-6"	6-14"
B2	Black Carbon 0-6"	6-16"	D2	0-6"	6-19"
B3	0-6"	6-17"	D3	0-6"	6-13"
B4	0-6"	6-18"	D4	0-6"	6-19"
B5	0-6"	6-14"	D5	0-6"	6-16"
B6	0-6"	6-18"	D6	0-6"	6-13"
B7	Black Carbon 0-6"	6-13"	D7	GD ~~0-6~~ 0-6"	6-12"
B8	Black Carbon 0-6	6-24"	D8	0-6"	6-16"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-25-14 **Sample Time:** 1343

Weather: Overcast 60°F **Sampler:** GD

Sample ID: ~~021~~ GD CFI55-021-S0-0-0.5

Decision Unit #: 021

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil, Brown Gravel, sand, silt, trace roots

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lead sieve

Weight: 1528g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-25-16 **Sample Time:** 1345

Weather: Overcast 60°F **Sampler:** GD

Sample ID: CFISS-021-SO-0.5-2

Decision Unit #: 021

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil; Brown Gravel, sand, silt

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight: 1,522g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 021 **Date:** 6-25-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2'		0-0.5'	0.5-2'
A1	0-6"	6-12"	C1	0-6"	6-15"
A2	0-6"	6-12"	C2	0-6"	6-12"
A3	0-6"	6-15"	C3	0-6"	6-13"
A4	0-6"	6-14"	C4	Black Carbon 0-6"	6-14"
A5	0-6"	6-15"	C5	0-6"	6-14"
A6	0-6"	6-9"	C6	0-6"	6-16"
A7	0-6"	6-13"	C7	0-6"	6-14"
A8	0-6"	6-15"	C8	0-6"	6-15"
B1	0-6"	6-14"	D1	GD Black Carbon ~~0-6~~ 0-6"	6-14"
B2	0-6"	6-18"	D2	0-6"	6-14"
B3	0-6"	6-14"	D3	0-6"	6-8"
B4	0-6"	6-11"	D4	0-6"	6-17"
B5	0-6"	6-17"	D5	0-6"	6-20"
B6	0-6"	6-11"	D6	0-6"	6-12"
B7	0-6"	6-17"	D7	0-6"	6-15"
B8	Black Carbon 0-6"	6-14"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-~~25~~-16 27 GD **Sample Time:** 0852

Weather: Clear 65°F **Sampler:** GD

Sample ID: CFISS-022-SO-0-0.5

Decision Unit #: 022

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil, brown Gravel, Sand, Silt; Moist

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,487g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-~~25~~ 22-16	**Sample Time:**	0856
Weather:	Clear 65°F	**Sampler:**	GD
Sample ID:	CFISS-022-SO-0.5-2		
Decision Unit #:	022		
Sample Interval:	0.5-2'		
Laboratory Name:	TestAmerica		

General Observations about DU: Sub-soil; brown Gravel, sand, silt; moist

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight: 1,608g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 022 **Date:** 6-25-16 & 6-27-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-15"	C1	0-6"	6-19"
A2	0-6"	6-14"	C2	0-6"	6-14"
A3	0-6"	6-20"	C3	0-6"	6-14"
A4	0-6"	6-12"	C4	0-6"	6-16"
A5	0-6"	6-14"	C5	0-6"	6-15"
A6	0-6"	6-15"	C6	0-6"	6-15"
A7	0-6"	6-19"	C7	0-6"	6-18"
A8	0-6"	6-13"	C8	~~0-16~~ 0-6" GD	6-19" 6-25-16 6-27-16
B1	0-6"	6-17"	D1	0-6"	6-16"
B2	0-6"	6-16"	D2	0-6"	6-14"
B3	0-6	6-18"	D3	0-6"	6-14"
B4	Black Carbon 0-6"	6-16"	D4	0-6"	6-19"
B5	0-6"	Black Carbon 6-15"	D5	0-6"	6-18"
B6	0-6"	6-15"	D6	0-6"	6-14"
B7	Black Carbon 0-6"	6-14"	D7	0-6"	6-16"
B8	0-6"	6-19"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-27-16 **Sample Time:** 1149

Weather: Clear 76°F **Sampler:** GD

Sample ID: CFISS-023-SO-0-0.5

Decision Unit #: 023

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil; brown Gravel, sand, silt; moist

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,281 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-27-16 **Sample Time:** 1151

Weather: Clear 76°F **Sampler:** GD

Sample ID: CFISS-023-SO-0.5-2

Decision Unit #: 023

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil; brown Gravel, sand, silt; moist; black carbon as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight - 1,451g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 023 **Date:** 6-27-16

Sample Interval: 0-0.5 & 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-17"	C1	0-6"	6-22"
A2	0-6"	6-16"	C2	0-6"	Black Carbon 6-12"
A3	0-6"	6-10"	C3	0-6"	6-17"
A4	0-6"	6-14"	C4	0-6"	Black Carbon 6-14"
A5	0-6"	6-20" GD	C5	0-6"	Did not measure
A6	0-6"	6-12"	C6	0-6"	Black carbon 6-21"
A7	0-6"	6-10"	C7	0-6"	6-17"
A8	0-6"	6-22"	C8	0-6"	6-11"
B1	0-6"	6-20"	D1	0-6"	6-20"
B2	0-6"	6-17"	D2	0-6"	6-23"
B3	0-6"	6-13"	D3	0-6"	Black Carbon 6-16"
Moved inside fence B4	0-6"	6-20"	D4	0-6"	6-20"
B5	0-6"	6-11"	D5	0-6"	6-24"
B6	0-6"	6-18"	Moved inside fence D6	0-6"	6-14"
B7	0-6"	6-16"	D7	0-6"	6-20"
B8	0-6"	6-18"	D8	0-6"	6-15"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-29-16 **Sample Time:** 1350

Weather: clear 75° **Sampler:** Mason

Sample ID: CFISS-024-SO-0-0.5

Decision Unit #: 24

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil, silt sand gravel; concrete BB

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals +Pb sieved	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lab sieve

Weight: ~~1,461 g~~ (SW)
1,370 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-29-16 **Sample Time:** 1355

Weather: clear 75° **Sampler:** Mason

Sample ID: CFISS-024-SO-0.5-2

Decision Unit #: 24

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Subsoil; silt, sand, gravel; Black carbon in A2, B1, B3, B5, B6, D2, D3; charcoal in D4

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,486 g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 24 **Date:** 6-29-16

Sample Interval: 0-0.5 ; 0.5-2

Sampler: Mason

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-13"	C1	0-6"	6-12"
A2	0-6"	trace black carbon 6-21"	C2	0-6"	6-18"
A3	0-6"	6-18"	C3	0-6"	6-7"
A4	0-6"	6-11"	C4	0-6"	6-14"
A5	0-6"	6-12"	C5	0-6"	6-16"
A6	0-6"	6-10"	C6	0-6"	6-17"
A7	0-6"	6-11"	C7	0-6"	6-11"
A8	0-6"	6-16"	C8	0-6"	6-17"
B1	0-6"	black carbon 6-16"	D1	0-6"	6-8"
B2	0-6"	6-14"	D2	0-6"	black carbon 6-18"
B3	0-6"	black carbon 6-16"	D3	0-6"	black carbon 6-23"
B4	0-6"	6-7"	D4	0-6"	charcoal? 6-13"
B5	0-6"	black carbon 6-13"	D5	0-6"	6-17"
B6	0-6"	black carbon 6-17"	D6	0-6"	6-20"
B7	0-6"	6-7"	D7	0-6"	6-13"
B8	Concrete 0-6"	6-17"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	6-30-16	**Sample Time:**	1020
Weather:	Clear 70°	**Sampler:**	
Sample ID:	CF1SS-025-SO-0-0.5		
Decision Unit #:	25		
Sample Interval:	0-0.5"		
Laboratory Name:	TestAmerica		

General Observations about DU: Soil, silt sand and gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Relocated A1 & 7, B 6 & 8, D2, D6, D7, D5

see data sheet for coord.

weight 1,444 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-30-16 **Sample Time:** 1030

Weather: Clear 70° **Sampler:** Mason

Sample ID: CFISS-025-SO-0.5-2

Decision Unit #: 25

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Soil; silt sand and gravel; black carbon in C6, D4, D7, D8

Preliminary - Under EPA and MDEQ Review

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Relocated A1, A7, B6, B8
D2, D6, D5, D7
see data sheet for coord.

Weight - 1,459g

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 25 **Date:** 6-29 + 6-30-16

Sample Interval: 0-0.5 ; 0.5-2

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5'	0.5-2'
	X 843671.422287	Y 1544986.273036			
A1	0-6"	6-15"	C1	0-6"	6-13"
A2	0-6"	6-15"	C2	0-6"	6-19"
A3	0-6"	6-16"	C3	0-6"	6-7"
A4	0-6"	6-15"	C4	0-6"	6-15"
A5	0-6"	6-15"	C5	0-6"	6-20"
A6	0-6"	6-14"	C6	0-6"	black carbon 6-20"
	X 843673.273528	Y 1545003.136788			
A7	0-6"	6-19"	C7	0-6"	6-18"
A8	0-6"	6-13"	C8	0-6"	6-17"
B1	0-6"	6-13"	D1	0-6"	6-14"
				X 843748.986792	Y 1544929.547552
B2	0-6"	6-15"	D2	0-6"	6-14"
B3	0-6"	6-14"	D3	0-6"	6-8"
B4	0-6"	6-18"	D4	0-6"	black carbon 6-18"
B5	0-6"	6-11"	D5	0-6"	6-13"
	X 843746.807582	Y 1545056.287539			
B6	0-6"	6-13"	D6	0-6"	6-13"
B7	0-6"	6-17"	D7	0-6"	black carbon 0-19"
	X 843741.636881	~~Y 1544986.273036~~			black carbon
B8	0-15"	6-15"	D8	0-6"	0-18"
		Y 1545048.212737			

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-30-16 **Sample Time:** 1400

Weather: 80° clear **Sampler:**

Sample ID: CFISS-026-SO - 0-0.5

Decision Unit #: 26

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil, silt sand gravel ; concrete in A7

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Relocated C7 see data sheet for coords

weight 1,395g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-30-16 **Sample Time:** 1410

Weather: 80° clear **Sampler:**

Sample ID: CFISS-026-SO-0.5-2

Decision Unit #: 26

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Soil; silt sand gravel; fine gray silt/sand in D5 possibly aluminum/alumina or pulverized concrete

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located C7 see data sheet for coords.

weight 1,505g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 26 **Date:** 6-30-16

Sample Interval: 0-0.5 ; 0.5-2

Sampler: Mason

Sample Observations/Notes:

A1	0-6"	6-13"	C1	0-6"	6-15"
A2	0-6"	0-16"	C2	0-6"	6-17"
A3	0-6"	0-15"	C3	0-6"	6-13"
A4	0-6"	6-12"	C4	0-6"	6-15"
A5	0-6"	6-11"	C5	0-6"	6-17"
A6	0-6"	6-15"	C6	0-6"	6-16"
	concrete			x 843841.598673	1544911.458715
A7	0-6"	6-15"	C7	0-6"	6-15"
A8	0-6"	6-11"	C8	0-6"	6-13"
B1	0-6"	6-21"	D1	0-6"	6-10"
B2	0-6"	6-19"	D2	0-6"	6-13"
B3	0-6"	6-16"	D3	0-6"	6-15"
B4	0-6"	6-15"	D4	0-6"	6-15"
B5	0-6"	6-17"	D5	0-6"	6-18" gray alumina? or concrete
B6	0-6"	6-16"	D6	0-6"	6-15"
B7	0-6"	6-16"	D7	0-6"	6-14"
B8	0-6"	6-17"	D8	0-6"	6-14"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-1-16 **Sample Time:** 1022

Weather: Sunny 75°F **Sampler:** GD

Sample ID: ~~027 GD~~ CFISS-027-SO-0-0.5 (Dup3)

Decision Unit #: 027

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Topsoil; Brown silt/loam; trace gravel; dry to moist; roots in upper 2"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight: 1,108 g

DUP3

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-1-16 **Sample Time:** 1030

Weather: Sunny 75°F **Sampler:** GD

Sample ID: CFISS-027-SO-0.5-2

Decision Unit #: 027

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil; Brown topsoil to brown gravel, sand, silt; dry to wet; black carbon as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

weight: 1,414 g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 28 **Date:** 7-1-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-16"	C1	0-6"	6-16"
A2	0-6"	6-13"	C2	0-6"	6-15"
A3	Concrete pad-moved point 0-6"	6-18"	C3	0-6"	6-17"
A4	0-6"	6-20"	C4	0-6"	6-14"
A5	0-6"	6-18"	C5	0-6"	6-12"
A6	0-6"	6-16"	C6	0-6"	6-20"
A7	0-6"	6-17"	C7	0-6"	6-20"
A8	0-6"	6-14"	C8	0-6"	6-17"
B1	0-6"	6-18"	D1	0-6"	6-17"
B2	0-6"	6-17"	D2	0-6	Black Carbon 6-17"
B3	0-6"	6-15"	D3	0-6"	6-13"
B4	0-6"	6-13"	D4	0-6"	Black Carbon 6-22"
B5	0-6"	6-17"	D5	0-6"	6-13"
B6	0-6"	6-14"	D6	0-6"	6-14"
B7	0-6"	6-17"	D7	0-6"	6-12"
B8	0-6"	6-13"	D8	0-6"	6-16"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-1-16 **Sample Time:** 1316

Weather: Sunny 80°F **Sampler:** GD

Sample ID: CFISS-028-50-0-0.5

Decision Unit #: 028

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Top soil; brown silt loam to brown gravel, sand, silt; dry to moist; roots in the upper 2"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals + Pb	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sieve for lead

weight: 1,159 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-1-16 **Sample Time:** 1319

Weather: Sunny 80°F **Sampler:** GD

Sample ID: CFISS-028-SO-0.5-2

Decision Unit #: 028

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil, Brown Gravel, sand, silt to brown silt loam sometimes at top of interval; dry to ~~m~~ GD wet; carbon as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Sieve for Vol (BW)

weight: 1,408

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 27 **Date:** 7-1-16

Sample Interval: 0-0.5 & 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-15"	C1	0-6"	6-14"
A2	0-6"	6-16"	C2	Did not record	
A3	0-6"	6-19"	C3	0-6	6-12"
A4	0-6"	6-14"	C4	0-6"	6-16"
A5	0-6"	6-18" GO	C5	0-6"	6-17"
A6	0-6"	6-13"	C6	0-6"	6-15"
A7	0-6"	6-13"	C7	0-6"	6-17"
A8	0-6"	6-18"	C8	0-6"	Black Carbon 6-18"
B1	0-6"	6-10"	D1	0-6"	6-13"
B2	0-6"	6-10"	D2	0-6"	6-11"
B3	0-6"	6-17"	D3	0-6"	6-11"
B4	0-6"	6-18"	D4	0-6"	6-21"
B5	0-6"	6-12"	D5	0-6"	Black Carbon 6-21"
B6	0-6"	6-13"	D6	0-6"	6-17"
B7	0-6"	6-16"	D7	0-6"	6-12"
B8	0-6"	6-12"	D8	0-6"	6-15"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-27-16 **Sample Time:** 1551

Weather: Sunny, Clear 85°F **Sampler:** GD

Sample ID: CFIss-029-So-0-0.5

Decision Unit #: 029

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil; brown Gravel, sand, silt; Most; trace roots; black carbon as noted

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,288g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-27-16 **Sample Time:** 1554

Weather: Sunny, Clear 85°F **Sampler:** GD

Sample ID: CFISS-029-SO-0.5-2

Decision Unit #: 029

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil, brown Gravel, sand, silt; moist

Preliminary - Under EPA and MDEQ Review

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight: 1,540g

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 029 **Date:** 6-27-16

Sample Interval: 0-0.5' & 0.5-2'

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-18"	C1	0-6"	6-22"
A2	0-6"	6-17"	C2	0-6"	6-24"
A3	0-6"	6-19"	C3	0-6"	6-16"
A4	0-6"	6-18"	C4	0-6"	Black Carbon 6-23"
A5	0-6"	6-15"	C5	0-6"	6-8"
A6	0-6"	6-11"	C6	0-6	6-25"
A7	0-6"	6-18"	C7	0-6"	6-18"
A8	0-6"	6-20"	C8	0-6"	6-21"
B1	0-6"	Black Carbon 6-17"	D1	0-6"	6-15"
B2	0-6"	6-22"	D2	0-6"	6-18"
B3	0-6"	6-17"	D3	0-6"	6-15"
B4	moved due to slope 0-6"	6-15"	D4	0-6"	Black Carbon 6-17"
B5	Black Carbon 0-6	Black Carbon 6-22"	D5	0-6"	6-15"
B6	0-6"	6-9"	D6	0-6"	6-13"
B7	moved inside fence 0-6"	6-17"	D7	0-6"	6-18"
B8	0-6"	Black Carbon 6-23"	D8	0-6"	6-14"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-20-16 **Sample Time:** 1450

Weather: clear 75° **Sampler:** Mason

Sample ID: CFISS-030-SO-0-0.5'

Decision Unit #: 30

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Silt sand and gravel; asphalt D4, D5, C2; ~~black carbon~~ S/M

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located numerous

see datasheet

weight - 1.59kg

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-20-16 **Sample Time:** 1500

Weather: clear 75° **Sampler:** Mason

Sample ID: CF155-030-S0-0.5-2

Decision Unit #: 30

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Silt sand and gravel; black carbon in A2, B2, B4, B8, A10; wood ash in B5, B6

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located multiple locations - see data sheet

weight 1,398g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 30 **Date:** 7-20-16

Sample Interval: 0 - 0.5 & 0.5 - 2'

Sampler: Mason

Sample Observations/Notes:

A1 843548.644601 0-6"	1544824.062610 6-15"	C1 0-6"	6-12"
A2 843552.569995 0-6"	1544802.808025 6-12" blackcarbon	C2 asphalt 0-6"	6-24"
A3 843558.355466 0-6"	1544826.022871 6-18"	C3 843562.304845 0-6"	1544656.244064 6-21"
A4 0-6"	6-12"	C4 0-6"	6-18"
A5 843563.023533 0-6"	1544825.138044 6-12"	C5 0-6"	6-24"
A6 843555.594863 0-6"	1544801.654580 6-12"	C6 0-6"	6-16"
A7 843551.851772 0-6"	1544803.340745 6-12"	C7 843548.800380 0-6"	1544706.280796 6-15"
A8 843553.938899 0-6"	1544824.054665 6-15"	C8 843527.646173 0-6"	1544729.881593 6-15"
B1 0-6"	6-24"	D1 0-6"	6-24"
B2 843668.723911 0-6"	1544825.132300 6-24" blackcarbon	D2 0-6"	6-21"
B3 0-6"	6-21"	~~843562.304845~~ D3 0-6"	~~1544656.244064~~ 6-21"
B4 843369.302422 0-6"	1544805.445563 6-18" blackcarbon	asphalt 843611.099810 D4 0-6"	Y 1544671.557271 6-24"
B5 843665.440783 0-6"	1544853.407280 6-24" wood ash	asphalt D5 0-6"	6-24"
B6 843658.456770 0-6"	1544850.387918 6-24" wood ash	D6 0-6"	6-21"
B7 0-6"	6-18"	D7 0-6"	6-18"
B8 0-6"	black carbon 6-24"	D8 0-6"	6-24"

Preliminary Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7/25/16 **Sample Time:** 1445

Weather: Clear 80°F **Sampler:** AH

Sample ID: CF1SS-030-SO-0-0.5

Decision Unit #: 030

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: ~~F-C SAND~~ Silt sand and gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Resample from FedEx error

weight - 1557g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7/25/16 **Sample Time:** 1450

Weather: Clear 80°F **Sampler:** AH

Sample ID: CFISS-030-SO-0.5-2

Decision Unit #: 030

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Silt sand and gravel

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Resample from FedEx error

weight - 1,309g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 31 **Date:** 7-13-16

Sample Interval: 0 - 0.5' & 0.5 - 2'

Sampler: Mason

Sample Observations/Notes:

	0-.5'	0.5-2'		0-0.5'	0.5-2'
A1	0-6"	6-18"	C1	0-6"	6-18"
A2	0-6"	black carbon 6-18"	C2	asphalt 0-6"	6-12"
A3	0-6"	black carbon 6-24"	C3	0-6"	6-18"
A4	0-6"	black carbon/wood 6-24" ash	C4	asphalt 0-6"	6-18"
A5	0-6"	black carbon 6-24"	C5	0-6"	6-20"
A6	0-6"	6-24"	C6	0-6"	6-20"
A7	0-6"	6-24"	C7	0-6"	6-12"
A8	0-6"	black carbon 6-24"	C8	black carbon 0-6"	6-24"
B1	0-6"	6-18"	D1	0-6"	6-18"
B2	0-6"	6-22"	D2	0-6"	6-19"
B3	0-6"	black carbon 6-24"	D3	0-6"	6-18"
B4	0-6"	6-20"	D4	0-6"	black carbon 6-20"
B5	0-6"	6-19"	D5	0-6"	6-18"
B6	0-6"	black carbon 6-18"	D6	0-6"	6-20"
B7	0-6"	6-16"	D7	0-6"	6-24"
B8	0-6"	6-18"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-13-16 **Sample Time:** 1115

Weather: cloudy **Sampler:** Mason

Sample ID: CFISS-031-SO-0-0.5

Decision Unit #: 31

Sample Interval: 0 - 0.5'

Laboratory Name: TestAmerica

General Observations about DU: Brown silt sand gravel; asphalt in C2 + C4; black carbon in C8

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight - 1247g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-13-16 **Sample Time:** 1125

Weather: cloudy **Sampler:** Mason

Sample ID: CFISS-031-SO-0.5-2

Decision Unit #: 31

Sample Interval: 0.5 - 2

Laboratory Name: TestAmerica

General Observations about DU: Silt sand gravel; black carbon in A2, A3, A4, A5, A8, B3, B6, D4

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight 1,348g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 32 **Date:** 7-12-16

Sample Interval: 0-0.5' & 0.5-2'

Sampler: Mason

Sample Observations/Notes:

A1	0-6"	6-20"	C1	0-6"	6-17"
A2	0-6"	6-15"	C2	843857.288530 0-6"	1544744.116007 6-18"
A3	0-6"	6-18"	C3	0-6"	6-15"
A4	0-6"	6-18"	C4	RR bed fill 0-6"	6-22"
A5	0-6"	6-18"	C5	0-6"	6-18"
A6	0-6"	6-17"	C6	0-6"	6-22"
A7	0-6"	6-24"	C7	0-6"	6-13"
A8	0-6"	6-18"	C8	0-6"	6-24"
B1	0-6"	6-24"	D1	black carbon 0-6"	black carbon 6-24"
B2	0-6"	6-11"	D2	0-6"	6-14"
B3	0-6"	6-17"	D3	black carbon 0-6"	6-12"
B4	0-6"	6-18"	D4	0-6"	6-20"
B5	0-6"	6-18"	D5	0-6"	6-24"
B6	0-6"	6-18"	D6	0-6"	6-24"
B7	0-6"	6-18"	D7	RR bed fill 0-6"	6-17"
B8	0-6"	6-18"	D8	0-6"	6-16"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-12-16 **Sample Time:** 1440

Weather: Partly cloudy 70° **Sampler:** Mason

Sample ID: CFISS-032-SO-0-0.5

Decision Unit #: 32

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown-dark brown silt sand gravel soil; Railroad bed fill in C4 + D7, black carbon material in D1 & D3

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	✓
Soil TAL Metals	✓
Soil TCL PCBs	✓
Soil TCL Pesticides	✓
Soil Total Cyanide	✓
Soil Fluoride	✓
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Lab sieve

Re-located C2 - see data sheet for coords.

Weight - 1.256g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-12-16 **Sample Time:** 1450

Weather: Pt. cloudy 70° **Sampler:** Mason

Sample ID: CFISS-032-SO-0.5-2

Decision Unit #: 32

Sample Interval: 0.5 -2

Laboratory Name: TestAmerica

General Observations about DU: Brown silt sand gravel; black carbon material in DI

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located C2 - see data sheet for coords.

weight - 1409g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 33 **Date:** 7-12-16

Sample Interval: 0-0.5 ; 0-5-2

Sampler: Mason

Sample Observations/Notes:

A1			C1	0-6"	6-21"
A2	0-6"	6-17"	C2	0-6" RR bed fill ←	RR bed fill 6-22"
A3	0-6"	6-17"	C3	0-6"	6-24"
A4	0-6"	6-18"	C4	0-6"	6-19"
A5	0-6"	6-22"	C5	0-6"	6-24"
A6	0-6"	6-20"	C6	0-6" black carbon/ctp	black carbon / 6-21" coal tar pitch
A7	0-6"	6-21"	C7	0-6"	6-24"
A8	0-6"	6-19"	C8	0-6"	6-19"
B1	0-6"	6-17"	D1	0-6"	6-24"
B2	0-6"	6-22"	D2	0-6"	6-24"
B3	0-6"	6-17"	D3		
B4	0-6"	6-24"	D4	0-6" black coal tar pitch	6-24"
B5	0-6"	6-21"	D5	0-6"	6-24"
B6	0-6"	6-22"	D6	0-6"	6-24"
B7	0-6"	6-24"	D7	0-6"	6-24"
B8	0-6"	6-21"	D8	0-6"	6-12"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	7-12-16	**Sample Time:**	1100
Weather:	clear 70°	**Sampler:**	Mason
Sample ID:	CFISS-033-SO-0-0.5		
Decision Unit #:	33		
Sample Interval:	0 - 0.5		
Laboratory Name:	TestAmerica		

General Observations about DU: Brown - dark brown silt sand gravel, railroad bed C2; black material possible carbon and/or coal tar pitch in C6 & D4

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight 1202g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	7-12-16	**Sample Time:**	1110
Weather:	clear 70°	**Sampler:**	Mason
Sample ID:	CFISS-033-SO-0.5-2		
Decision Unit #:	33		
Sample Interval:	0.5 - 2		
Laboratory Name:	TestAmerica		

General Observations about DU: Brown silt sand and gravel; railroad bed fill in C2, black material possible carbon and/or coal tar pitch in C6

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight 1,3129

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	7-11-16	**Sample Time:**	1535
Weather:	cloudy 68°	**Sampler:**	Mason
Sample ID:	CFISS-034-SO-~~0.5~~ ~~2~~ 0-0.5		
Decision Unit #:	34		
Sample Interval:	0-0.5		
Laboratory Name:	TestAmerica		

General Observations about DU: Brown-dark brown soil, silt and sand ~~some~~ little-trace gravel; coal tar pitch in C4, D2, D4

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located C5, D1, D4, D5, D8 due to slope, see data sheet for coords.

Weight - 1,228g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Date:	7-11-16	**Sample Time:**	1540
Weather:	cloudy 68°	**Sampler:**	
Sample ID:	CFISS-034-SO-0.5-2		
Decision Unit #:	34		
Sample Interval:	0.5 - 2		
Laboratory Name:	TestAmerica		

General Observations about DU: Brown silt sand and gravel; black carbon material in A4

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located C5, D1, D4, D5, D8 due to slope see data sheet for coords.

weight 146 kg

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 34 **Date:** 7-11-16

Sample Interval: 0-0.5' & 0.5-2'

Sampler: Mason

Sample Observations/Notes:

A1	0-6"	6-24"	C1	0-6"	6-22"
A2	0-6"	6-21"	C2	0-6"	6-16"
A3	0-6"	6-18"	C3	0-6"	6-21"
A4	0-6"	black carbon 6-24"	C4	trace coal tar pitch 0-6" X 844269.058953	6-24" Y 1544712.860152
A5	0-6"	6-24"	C5	0-6"	6-19"
A6	0-6"	6-19"	C6	0-6"	6-21"
A7	0-6"	6-15"	C7	0-6"	6-24"
A8	0-6"	6-20"	C8	0-6" X 844367.241873	6-24" Y 1544703.384785
B1	0-6"	6-22"	D1	0-6"	6-18"
B2	0-6"	6-24"	D2	black coal tar pitch 0-6"	6-24"
B3	0-6"	6-18"	D3	0-6" X 844371.188577	6-19" Y 1544667.432514
B4	0-6"	6-18"	D4	0-6" ctpitch X 844387.545783	6-12" Y 1544702.601232
B5	0-6"	6-21"	D5	0-6"	6-24"
B6	0-6"	6-22"	D6	0-6"	6-24"
B7	0-6"	6-24"	D7	0-6" Y 844383.431805	6-19" Y 1544663.607216
B8	0-6"	6-20"	D8	0-6"	6-21"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-11-16 **Sample Time:** 1155

Weather: cloudy 55° **Sampler:** Mason

Sample ID: CFISS-035-SO-0-0.5

Decision Unit #: 35

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown-dark brown silt sand soil some gravel; trace coal tar pitch in C1, C6, C8; A2 & D4 in railroad bed-fill

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located C-1,-3,-7,-8 and D6 due to slopes see data sheet for coords.

weight 1336g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-11-16 **Sample Time:** 1200

Weather: cloudy 55° **Sampler:** Mason

Sample ID: CFISS-035-SO-0.5-2.0

Decision Unit #: 35

Sample Interval: 0.5 - 2.0'

Laboratory Name: TestAmerica

General Observations about DU: Brown silt sand gravel; trace black carbon in A3 and A5

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located C-1, -3, -7, -8 and D6 due to slopes see data sheet for coords.

Weight 1517g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 35 **Date:** 7-11-16

Sample Interval: 0 - 0.5' & 0.5 - 2.0'

Sampler: Mason

Sample Observations/Notes:

				x 844436.383417	Y 1544648.229544
A1	0-6" ~~Fill~~	6-18"	C1	0-6" trace coal tar pitch	6-18" ~~trace coal tar pitch~~
A2	0-6" RR ~~ballast~~ fill	6-18"	C2	0-6"	6-24"
		6-24"		x 844506.763884	Y 1544621.241865
A3	0-6"	black coarbon trace	C3	0-6"	6-24"
A4	0-6"	6-24"	C4	0-6"	6-21"
		trace black carbon			
A5	0-6"	6-24"	C5	0-6"	6-19"
				x trace coal tar pitch	
A6	0-6"	6-18"	C6	0-6"	6-24"
				x 844509.616441	Y 1544616.662090
A7	0-6"	6-17"	C7	0-6"	6-24"
				x 844435.575416	Y 1544644.485081
A8	0-6"	6-21"	C8	0-6" trace coal tar pitch	6-21" ~~trace coal tar pitch~~
B1	0-6"	6-18"	D1	0-6"	6-20"
B2	0-6"	6-15"	D2	0-6"	6-19"
B3	0-6"	6-24"	D3	0-6"	6-12"
				RR bed	
B4	0-6"	6-20"	D4	0-6"	6-15"
B5	0-6"	6-16"	D5	0-6"	6-24"
				x 844581.458541	1544612.161677
B6	0-6"	6-18"	D6	0-6"	6-17"
B7	0-6"	6-15"	D7	0-6"	6-24"
B8	0-6"	6-21"	D8	0-6"	6-19"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-15-16 **Sample Time:** 1600

Weather: Sunny, clear 78°F **Sampler:** GD

Sample ID: CFISS-036-50-0-0.5

Decision Unit #: 036

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill; brown to black Sand f-c, silt; gravel; dry to moist; roots in top 1" occassionally

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Weight - 1,444g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-15-16 **Sample Time:** 1603

Weather: Sunny, clear 78°F **Sampler:** GD

Sample ID: CFISS-036-50-0.5-2

Decision Unit #: 036

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil; brown to black Sand, silt, gravel; dry to moist

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight - 1,367g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 036 **Date:** 7-15-16

Sample Interval: 0-0.5' + 0.5-2'

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-17"	C1	0-6"	6-10"
A2	0-6"	6-15"	C2	0-6"	6-11"
A3	0-6"	6-16"	C3	0-6"	6-17"
A4	0-6"	6-17"	C4	0-6"	6-13"
A5	0-6"	6-17"	C5	0-6"	6-16"
A6	0-6"	6-15"	C6	0-6"	6-14"
A7	0-6"	6-14"	C7	0-6"	6-20"
A8	0-6"	6-12"	C8	0-6"	6-15"
B1	0-6"	6-19"	D1	0-6"	6-17"
Moved due to access - north					
B2	0-6"	6-15"	D2	0-6"	6-13"
B3	0-6"	6-16"	D3	0-6"	6-19"
B4	0-6"	6-16"	D4	0-6"	6-16"
B5	0-6"	6-16"	D5	0-6"	6-18"
B6	0-6"	6-14"	D6	0-6"	6-17"
B7	0-6"	6-14"	D7	0-6"	6-15"
B8	0-6"	6-19"	D8	0-6"	6-19"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-15-16 **Sample Time:** 1150

Weather: Sunny, clear 78°F **Sampler:** GD

Sample ID: CFISS-037-SO-0-0.5

Decision Unit #: 037

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill: brown to black Sand f-c, gravel, silt; dry to moist; black carbon as noted; sometimes roots in top 1"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

*Sieve for lead

Weight - 1.32 lg

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-15-16 **Sample Time:** 1154

Weather: Sunny, clear 78°F **Sampler:** GD

Sample ID: CFISS-037-SO-0.5-2

Decision Unit #: 037

Sample Interval: 0.5 - 2'

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil: brown to black silt, gravel, sand; dry to wet; black carbon as noted

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

weight 1,296g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 37 **Date:** 7-15-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
	Moved inside the fence - south				
A1	0-6"	6-17"	C1	0-6"	6-20"
A2	0-6"	6-18"	C2	0-6"	6-22"
A3	0-6"	6-16"	C3	0-6"	6-21"
	Black carbon				
A4	0-6"	6-15"	C4	0-6"	6-15"
A5	0-6"	6-22"	C5	0-6"	6-14"
A6	0-6"	6-13"	C6	0-6"	6-15"
A7	0-6"	6-17"	C7	0-6"	6-20"
	moved due to debris pile - west				
GD A8	~~Black carbon~~ 0-6"	6-17"	C8	0-6"	6-18"
				Black Carbon	
B1	0-6"	6-16"	D1	0-6"	6-8"
B2	0-6"	6-16"	D2	0-6"	6-11"
	moved due to access - south				
	Black carbon				
B3	0-6"	6-18"	D3	0-6"	6-14"
				Black carbon	
B4	0-6"	6-11"	D4	0-6"	6-15"
	moved due to debris pile - east			Black carbon	
B5	0-6"	6-16"	D5	0-6"	6-15"
				Black Carbon	Black Carbon @ top
B6	0-6"	6-16"	D6	0-6"	6-11"
B7	0-6"	6-18"	D7	0-6"	6-13"
	Black Carbon	Black carbon @ top		Black Carbon	
B8	0-6	6-16"	D8	0-6"	6-14"

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 38 **Date:** 7-14-16

Sample Interval: 0 - 0.5 & 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

A1	0-6"	6-24"	C1	0-6"	6-18" black carbon
	842631.178669	1544910.960598			
A2	0-6" black carbon	6-15" black carbon	C2	0-6"	6-21"
	842623.722546	1544912.337540		black carbon	
A3	0-6"	6-15"	C3	0-6"	6-18"
	842569.168546	1544886.174855			
A4	0-6"	6-20"	C4	0-6"	6-18"
	black carbon			black carbon	~~black carbon~~
A5	0-6"	6-18"	C5	0-6"	6-15"
A6	0-6"	6-18"	C6	0-6"	6-15"
A7	0-6"	6-18"	C7	0-6"	6-15"
A8	0-6"	6-18"	C8	0-6"	6-15"
					black carbon
B1	0-6"	6-24"	D1	0-6"	6-21"
	842670.857180	1544908.915439			
B2	0-6"	6-18"	D2	0-6"	6-18"
B3	0-6"	6-21"	D3	0-6"	6-18"
	842717.756628	1544902.477838			
B4	0-6"	6-18"	D4	0-6"	6-18"
		black carbon			
B5	0-6"	6-20"	D5	0-6"	6-18"
	842669.402853	1544904.884079			
B6	0-6"	6-15"	D6	0-6"	6-18"
				0-6"	6-12"
B7	0-6"	6-20"	D7		
B8	0-6"	6-18"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-14-16 **Sample Time:** 1600

Weather: clear 75° **Sampler:** Mason

Sample ID: CFISS-038-SO-0-0.5

Decision Unit #: 38

Sample Interval: 0 - 0.5'

Laboratory Name: TestAmerica

General Observations about DU: Brown silt sand gravel; black carbon in A2, A5, C3, C5

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located A2, A3, A4, B2, B4, B6 due to gas line or rubble

MASS: 1,574 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-14-16 **Sample Time:** 1610

Weather: clear 75° **Sampler:**

Sample ID: CFISS-038-SO-0.5-2

Decision Unit #: 38

Sample Interval: 0.5 - 2'

Laboratory Name: TestAmerica

General Observations about DU: silt sand gravel; black carbon in A2, B5, C3, C5, D1

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located A2, A3, A4, B2, B4, B6 due to gas line or rubble

MASS: 1,458 g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 39 **Date:** 7-14-16

Sample Interval: 0-0.5' + 0.5-2'

Sampler: Mason

Sample Observations/Notes:

A1	0-6"	6-15"	C1	0-6"	6-24"
A2	0-6"	6-15"	C2	0-6"	6-18"
	842748.538966	1544899.133171			
A3	0-6"	6-24"	C3	0-6"	6-24"
					Black carbon
A4	0-6"	6-15"	C4	0-6"	6-24"
A5	0-6"	6-18"	C5	0-6"	6-24"
	842796.122720	1544902.897832			
A6	0-6"	6-20"	C6	0-6"	6-18"
	842785.440687	1544905.021665			
A7	0-6"	6-18"	C7	0-6"	6-24"
	842756.088211	1544902.798856			
A8	0-6"	6-24"	C8	0-6"	6-18"
	842893.942080	1544891.380025			
B1	0-6"	6-24"	D1	0-6"	6-15"
B2	0-6"	6-18"	D2	0-6"	6-24"
	842936.199462	1544868.804378			
B3	0-6"	6-21"	D3	0-6"	6-18"
				842933.916509	1544832.154672
B4	0-6"	6-24"	D4	0-6"	6-24"
	842920.222289	1544869.299548		842848.379074	1544831.999031
B5	0-6"	6-24"	D5	0-6"	6-18"
	842862.568889	1544892.678822		842940.707154	1544821.133362
B6	0-6"	6-18"	D6	0-6"	6-18"
B7	0-6"	6-12"	D7	0-6"	6-24"
B8	0-6"	6-21"	D8	0-6"	6-18"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-14-16 **Sample Time:** 1210

Weather: clear 75° **Sampler:** Mason

Sample ID: CFISS-039-SO-0-0.5

Decision Unit #: 39

Sample Interval: 0 - 0.5'

Laboratory Name: TestAmerica

General Observations about DU: Brown silt sand gravel;

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located A3, A6, A7, A8, B1, B3, B5, B6, D4, D5, D6 due to gasline or rubble

mass: 1,546 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-14-16 **Sample Time:** 1220

Weather: clear 75° **Sampler:** Mason

Sample ID: CFISS-039-SO-0.5-2

Decision Unit #: 39

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Silt sand gravel ; black carbon C4

Preliminary - Under EPA and MDEQ Review

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located A3, A6, A7, A8, B1, B3, B5, B6, D4, D5, D6, due to gas line or rubble

Mass: 1,393 g

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 40 **Date:** 7-13-16

Sample Interval: 0 - 0.5 & 0.5 - 2

Sampler: Mason

Sample Observations/Notes:

A1 0-6"	6-18"	C1 0-6"	6-16"
A2 0-6"	6-24"	C2 0-6"	6-18"
842982.955738	1544895.293847		
A3 0-6"	6-24"	C3 0-6"	6-12"
A4 0-6"	6-24"	C4 0-6"	6-18"
A5 0-6"	6-18"	C5 0-6"	6-24"
A6 0-6"	6-15"	C6 0-6"	6-24"
842954.514309	1544898.069494		
A7 0-6"	6-24"	C7 0-6"	6-18"
A8 0-6"	6-24"	C8 0-6"	6-20"
843058.474235	1544896.404314		
B1 0-6"	6-20"	D1 0-6"	6-18"
843141.336876	1544891.474219		
B2 0-6"	6-18"	D2 0-6"	6-20"
B3 0-6"	6-20"	D3 0-6"	6-20"
843078.786369	1544895.42584		
B4 0-6"	6-24"	D4 0-6"	6-13"
843091.872922	1544891.862693		
B5 0-6"	6-18"	D5 0-6"	6-24"
B6 0-6"	6-18"	D6 0-6"	black carbon 6-20"
B7 0-6"	6-18"	D7 0-6"	black carbon 6-24"
843150.297159	1544879.366597		
B8 0-6"	6-24"	D8 0-6"	black carbon 6-24"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-13-16 **Sample Time:** 1440

Weather: cloudy 70° **Sampler:** Mason

Sample ID: CF155-040-SO-0-0.5

Decision Unit #: 40

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Brown - dark brown silt sand gravel;

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located A3, A7, B1, B2, B4 B5, B8 due to proximity to natural gas line - see data sheet for coords

weight - 150 lbs

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-13-16 **Sample Time:** 1450

Weather: cloudy 70° **Sampler:** Mason

Sample ID: CFISS-040-SO-0.5-2

Decision Unit #: 40

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Brown silt sand gravel; black carbon in D6, D7, D8

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Re-located A3, A7, B1, B2, B4, B5, B8 due to proximity to natural gas line - see data sheet for coords

weight 1,3839

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-16-16 **Sample Time:** 1015

Weather: Overcast, rain, 55°F **Sampler:** GD

Sample ID: CF Iss-041-SO-0-0.5

Decision Unit #: 041

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill: brown to black Sand f-c, silt, gravel; dry to moist; roots in upper 1-2"

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,391 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 7-16-16 **Sample Time:** 1018

Weather: Overcast, rain, 55°F **Sampler:** GD

Sample ID: CF ISS-041-SO-0.5-2

Decision Unit #: 041

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil: brown to black sand, f-c, gravel, silt; dry to moist

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,388g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 41 **Date:** 7-16-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-19"	C1	0-6"	6-13"
A2	0-6"	6-16"	C2	0-6"	6-17"
A3	0-6"	6-15"	C3	0-6"	6-19"
A4	0-6"	6-13"	C4	0-6"	6-16"
A5	0-6"	6-19"	C5	0-6"	6-11"
				moved ~~we~~ past due to debris	
A6	0-6"	6-10"	C6	0-6"	6-11"
A7	0-6"	6-14"	C7	0-6"	6-19"
A8	0-6"	6-17"	C8	0-6"	6-14"
B1	0-6"	6-20"	D1	0-6"	6-11"
B2	0-6"	6-19"	D2	0-6"	6-11"
B3	0-6"	6-11"	D3	0-6"	6-12"
B4	0-6"	6-13"	D4	0-6"	6-11"
B5	0-6"	6-18"	D5	0-6"	6-15"
B6	0-6"	6-17"	D6	0-6"	6-17"
B7	0-6"	6-17"	D7	0-6"	6-20"
B8	0-6"	6-14"	D8	0-6"	6-17"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: ~~7-16-16~~ GD 7-18-16 **Sample Time:** 0807

Weather: Sunny, breeze 65°F **Sampler:** GD

Sample ID: CFISS-042-SO-0-0.5

Decision Unit #: 042

Sample Interval: 0-0.5'

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill: Brown to black sand, gravel, silt; dry to moist; roots in upper 1" in vegetated areas. black carbon and metal shavings as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,426 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: ~~7-16-16~~ GD 7-18-16 **Sample Time:** 0811

Weather: Sunny, breeze, 65°F **Sampler:** GD

Sample ID: CF ISS-042-S0-0.5-2

Decision Unit #: 042

Sample Interval: 0.5-2'

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil, buried topsoil layer?, Brown to black Gravel, silt, sand; dry to wet.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,448

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 42 **Date:** 7-16-16 + *7-18-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5	0.5-2		0-0.5	0.5-2
A1	0-6"	6-21"	C1	0-6"	6-12"
*A2	0-6"	6-19"	C2	0-6"	6-19"
A3	0-6"	6-16"	*C3	0-6"	6-21"
A4	0-6"	6-20"	C4	0-6"	6-14"
A5	0-6"	6-18"	C5	0-6"	6-8"
A6	0-6"	6-18"	*C6	0-6"	6-16"
A7	0-6"	6-23"	*C7	0-6"	6-18"
A8	0-6"	6-9"	C8	0-6"	6-14"
B1	Black Carbon 0-6"	6-12"	D1	0-6"	6-19"
B2	Black Carbon 0-6"	6-20"	*D2	metal shavings 0-6"	6-17"
B3	0-6"	6-14"	*D3	0-6"	6-16"
B4	Black Carbon 0-6"	6-20"	*D4	0-6"	6-17"
B5	0-6"	6-12"	*D5	metal shavings 0-6"	6-19"
B6	Black Carbon 0-6"	6-19"	*D6	0-6"	6-13"
B7	0-6"	6-21"	*D7	metal shavings 0-6"	6-18"
B8	Black Carbon 0-6"	6-20"	*D8	0-6"	6-16"

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-18-16 **Sample Time:** 1131

Weather: Sunny, breeze 71°F **Sampler:** GD

Sample ID: CFISS-043-SO-0-0.5

Decision Unit #: 043

Sample Interval: 0-0.5

Laboratory Name: TestAmerica

General Observations about DU: Soil/fill; brown Gravel, sand, silt; dry to moist; black carbon, metal, asphalt as noted

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	X
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,453 g

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization ISM Soil Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Date: 6-18-16 **Sample Time:** 1135

Weather: Sunny, breeze, 77°F **Sampler:** GD

Sample ID: CFISS-043-SO-0.5-2

Decision Unit #: 043

Sample Interval: 0.5-2

Laboratory Name: TestAmerica

General Observations about DU: Sub-soil/fill; brown to black, Gravel, sand, silt; dry to wet; black carbon and metal as noted.

Analysis	
Soil TCL VOCS	
Soil TCL SVOCs	X
Soil TAL Metals	X
Soil TCL PCBs	X
Soil TCL Pesticides	
Soil Total Cyanide	X
Soil Fluoride	X
Soil PCDD/ PCDF	
Grain Size Analysis/ bulk density/ moisture content	
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

mass: 1,440 g

Preliminary - Under EPA and MDEQ Review

CFAC INCREMENTAL SAMPLING FIELD DATA SHEET

Site Name: CFAC **Project Number:** 2476.0001Y002

DU#: 043 **Date:** 7-18-16

Sample Interval: 0-0.5 + 0.5-2

Sampler: GD

Sample Observations/Notes:

	0-0.5'	0.5-2'		0-0.5'	0.5-2'
A1	0-6"	Black carbon 6-18"	C1	0-6"	6-17"
A2	0-6"	6-21"	C2	Moved off edge of asphalt-east. metal slagrings 0-6 asphalt frags.	6-19"
A3	0-6"	6-21"	C3	0-6"	6-12"
A4	0-6"	6-13"	C4	0-6"	6-10"
A5	0-6"	6-17"	C5	0-6"	6-15"
A6	0-6"	6-19"	C6	0-6"	1" piece of silver metal 6-10"
A7	0-6"	6-10"	C7	0-6"	6-15"
A8	0-6"	6-19"	C8	0-6"	6-10"
B1	0-6"	6-15"	D1	0-6"	6-14"
B2	Black Carbon 0-6"	6-16"	D2	Black carbon 0-6"	Black carbon 6-10"
B3	0-6"	6-21"	D3	Black Carbon 0-6"	Black Carbon 6-12"
B4	0-6	6-17"	D4	0-6"	6-16"
B5	0-6"	6-16"	D5	Did not record measurement.	
B6	0-6"	6-15"	D6	0-6"	6-16"
B7	0-6"	6-15"	D7	0-6"	6-10"
B8	Black Carbon 0-6"	6-22"	D8	Black Carbon 0-6"	6-12"

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW - 002
Date: 7/27/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 80 ft.
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 75.90 (TOC) pre-surge
Depth to Water (ft): END: 76.23
Start Time: 1355
Total Volume Removed: 26 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (80 ft – 73.3 ft) * (0.1636 gal/ft) * (3)

V = 3.28 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1355	1	1	76.25	12.22	411.45	7.27	0.712	283	>1000	turbid, turbidimeter unable to read
1400	6	1	76.25	11.48	13.78	7.20	0.705	293	164	light brown tint
1405	11	1	76.25	10.64	0.0	7.13	0.709	300	32.1	clear
1420	26	1	76.23	10.58	0.0	7.18	0.720	299	5.28	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-003
Date: 8/1/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 54' (installation depth bgs)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 22.85 (TOC)
Depth to Water (ft): END: 23.29 (TOC)
Start Time: 0900
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (54 ft – 22.85 ft) * (0.1636 gal/ft) * (3)
31.15

V = 15.3 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0940	40	1	30.06	11.66	1.83	6.47	2.36	130	MAX	milky/cloudy
0945	45	1	31.50	11.68	0.00	6.65	2.34	68	MAX	milky/cloudy
0950	50	1	32.20	11.84	0.00	6.75	2.34	50	MAX	milky/cloudy
1040	100	1	32.10	12.00	0.00	6.90	2.32	40	924	cloudy
1045	105	1	32.10	11.96	0.00	6.95	2.32	38	403	cloudy
1100	120	1	–	–	–	–	–	–	–	2 hrs.

Remarks:

DTB - 51.70' (TOC), bottom very silty. Will use bailer first to remove silts.

Will not attach WQ meter until water clears up. Attach at 0940

Pump for 2 hrs. Turbidity still above 10NTU

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

203.36(TOC)

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-003a
Date: 8/1/16 to 8/2/16
Developed by: Cascade Drilling / AH
Method of Developing: Surge and Pump

Total Depth of Well (ft): 200' bgs (as installed)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 149.92 (TOC) / 150.2 (TOC)
Depth to Water (ft): END: 152.89 (TOC)
Start Time: 1335 (8-1-16) / 0840 (8-2-16)
Total Volume Removed: 37 gallons

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (200 ft – 149.92 ft) * (0.1636 gal/ft) * (3)
V = 24.57 gal 50.08

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

Note: water quality readings collected in bucket due to low pump rate

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0850	17	.75	176.50	12.21	2.30	9.18	.333	-55	MAX	very silty
0855	19	.5	176.62	12.28	.42	9.01	.335	-95	MAX	very silty
0900	20	.25	176.80	14.09	1.86	9.11	.344	-78	MAX	very silty
0925	23	<.25	176.93	14.97	2.23	9.05	.339	-76	MAX	very silty
0948	29	<.25	185*	14.56	2.64	8.84	.314	-82	MAX	very silty
1000	30	<.25	185*	14.01	0.94	8.35	.350	-88	MAX	slighty silty
1010	32	<.25	185*	14.52	0.84	8.19	.366	-79	MAX	slighty silty
1025	34	<.25	185*	14.32	0.00	8.09	.383	-88	MAX	slighty silty
1040	37	<.25	185*	15.03	0.51	8.04	.389	-76	699	slighty silty

Remarks: 8/1/16: Pumped ~10 gallons before fuse on regulator/booster broke. Will fix regulator and re-pump well

* - Top of pump

8/2/16: Bailed about 3 gallons brown silty water. Pump overheating. Stop at 0925 to cool down. Resume 0935

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-008a
Date: 8/24/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 99.8 (TOC)
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 64.75
Depth to Water (ft): END: DRY
Start Time: NA
Total Volume Removed: NA

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (99.8 ft – 64.75 ft) * (0.1636 gal/ft) * (3)

V = 17.2 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)

Remarks: - well pumped previously on 8/4/16. well then jetted and galvanized pipe used to break through harder material below 90' bgs. Well filled with clean jetted water 8/19/16. Water dropped to ~65' below TOC 8/20. Returned to pump 8/24/16. Pumped dry with no recharge. water level below bottom of screen well will be considered developed as it was surged and pumped

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-008a
Date: 8/4/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 98' (as installed) 78.80 (TOC)
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 60.30 (TOC)
Depth to Water (ft): END: NA
Start Time: 0922
Total Volume Removed: NA

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (78.80 ft – 60.30 ft) * (.1636 gal/ft) * (3)
18.5

V = 9.07 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)

Preliminary - Under EPA and MDEQ Review

Remarks:
Previously (on 7/28/16) surged, bailed and pumped ~30 gallons (see pg. 2)
Pumped dry only after initial start; no recharge
Will need to reassess how to develop

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-008a
Date: 7/28/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 98'
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 34.4 (TOC) 32.6 (bgs)
Depth to Water (ft): END: NA
Start Time: 1605 (7/28/16)
Total Volume Removed: 30 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (98 ft – 32.6 ft) * (0.1636 gal/ft) * (3)

V = 33 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

	TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
7/28	1605	0	1	36.6	22.40	3.11	8.99	2.97	31	out of range	turbid, gray
7/28	1615	10	1	36.30	28.70	0.09	12.05	9.63	-220	out of range	gray, turbid
7/28	1620	15	1	36.3	32.43	0.0	12.12	8.78	-442	out of range	gray, turbid
7/28	1635	30	1	36.3	35.72	0.0	12.05	8.75	-504	1000	turbid, light gray
7/28	–	–	–	–	–	–	–	–	–	–	will assess at later date

Remarks: 7/28/16: Pumped well dry, thick grey liquid coming up from the well. Tried to bail the material. Pump still wouldn't draw water. Allowing to recharge and will assess at a later date.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-010
Date: 7/27/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 86'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 77.10 - TOC (pre-surge)
Depth to Water (ft): END: 77.45 - TOC
Start Time: 1034 (begin pumping)
Total Volume Removed: 71 gal

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (86 ft – 74.6 ft) * (0.1636 gal/ft) * (3)

V = 5.59 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1035	1	1	77.15	10.53	0.0	7.14	1.21	343	>1000	over turbidity range for measurement
1040	6	1	77.40	10.36	0.0	7.15	1.26	341	1945	tan color, DO reading @ 0.0
1045	11	1	77.42	10.07	0.0	7.14	1.37	337	108.8	faint brown, mostly clear, no DO rdg
(SW) 1105 ~~1050~~	31	1	77.40	10.09	0.0	7.12	1.41	336	51.4	Clear, no DO rdg
1125	51	1	77.44	9.95	0.0	7.21	1.41	330	36.6	Clear, no DO
1135	61	1	77.44	10.00	0.0	7.24	1.41	328	16.7	Clear
1145	71	1	77.45	10.00	0.0	7.26	1.40	328	9.96	Clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-011
Date: 7/29/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 50'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 34.65 (TOC) 32.20 (bgs)
Depth to Water (ft): END: 34.82 (toc)
Start Time: 0925
Total Volume Removed: 95 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (50 ft – 32.20 ft) * (0.1636 gal/ft) * (3)

V = 8.7 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0930	5	1	34.70	18.57	8.20	10.92	0.947	-56	128	somewhat cloudy
0940	15	1	34.70	10.49	0.0	7.96	0.383	254	138	somewhat turbid/ faint white
0950	25	1	34.70	10.10	0.0	7.49	0.381	269	89.4	slightly cloudy
1000	35	1	34.70	9.93	0.31	7.33	0.376	273	416.3	mostly clear
1010	45	1	34.70	10.13	0.65	7.28	0.377	273	28.0	mostly clear
1020	55	1	34.70	10.45	1.33	7.26	0.374	271	24.8	mostly clear
1035	70	1	34.70	10.79	2.20	7.27	0.370	271	14.5	clear
1050	85	1	34.70	10.67	2.42	7.28	0.368	270	11.8	clear
1100	95	1	34.70	10.83	4.45	7.42	0.369	262	4.84	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFmw-011a
Date: 8/3/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 166 (as installed)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 98.91
Depth to Water (ft): END: 100.78
Start Time: 1120
Total Volume Removed: 48.75 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (166 ft – 98.91 ft) * (0.1636 gal/ft) * (3)
67.09

V = 32.9 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1155	26.25	.75	103.75	10.36	0.00	~~280~~ 9.20	.280	-200	58.9	clear
1200	30	.75	104.26	9.76	0.00	8.96	.284	-265	21.8	clear
1220	45	.75	104.53	9.56	0.00	8.64	.319	-235	13.7	clear
1225	48.75	.75	104.53	9.55	0.00	8.59	.320	-229	9.68	clear

Preliminary - Under EPA and MDEQ Review

Remarks:

well previously surged and bailed. will begin with pumping

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-011a
Date: 7/29/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump
bail

Total Depth of Well (ft): 166
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 98.40 (TOC) 95.40 (bgs)
Depth to Water (ft): END: —
Start Time: 1230
Total Volume Removed: 22 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (166 ft – 95.40 ft) * (0.1636 gal/ft) * (3)

V = 35 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)

Remarks: 7/29/16: Sediment observed in bottom of well. Bailed ~2 gallons of water to remove sediment prior to surging the well.
- Pumped well ~20 mins prior to attaching flow-through cell. Pump no longer functioning. ~22 gallons removed. Will return to well at a later date.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-012a
Date: 7/27/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 210'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 143.2 (TOC) pre-surge
Depth to Water (ft): END: 143.20
Start Time: 1609
Total Volume Removed: 105 gallons

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (210 ft – 143.2 ft) * (0.1636 gal/ft) * (3)
V = 33 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1610	1.5	1.5	143.26	11.64	0.0	7.88	0.318	-132	3641	Lt. brown color
1615	9	1.5	143.30	11.42	0.0	7.45	0.350	-100	607	faint brown
1620	16.5	1.5	143.35	11.16	0.0	6.89	0.395	-60	232	mostly clear
1625	24	1.5	143.35	11.10	0.0	6.95	0.394	-69	128	mostly clear
1630	31.5	1.5	143.29	11.08	0.0	7.03	0.392	-80	55.6	mostly clear
1635	39	1.5	143.27	11.09	0.0	7.13	0.388	-92	43.7	mostly clear
1640	46.5	1.5	143.3	11.13	0.0	7.12	0.387	-96	36.0	mostly clear
1645	54	1.5	143.25	11.12	0.0	7.10	0.386	-97	31.7	mostly clear
1700	75	1.5	143.20	11.08	0.0	7.22	0.385	-105	24.5	Clear
1710	90	1.5	143.20	11.22	0.0	7.27	0.386	-105	13.4	clear
1720	105	1.5	143.20	11.13	0.0	7.30	0.386	-105	9.3	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-016
Date: 7/28/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 95 ft
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 93.2 (TOC) - 90.35 (bgs)
Depth to Water (ft): END: 93.30
Start Time: 1400
Total Volume Removed: 35

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (95 ft – 90.35 ft) * (0.1636 gal/ft) * (3)
V = 2.3 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1400	0	1	93.23	18.70	11.03	7.45	0.371	111	184.1	slightly turbid, light brown
1405	5	1	93.25	17.91	5.40	7.14	0.344	130	61.9	murky
1410	10	1	93.25	17.10	5.29	7.04	0.344	140	18.4	cloudy
1415	15	1	93.25	17.20	5.27	7.00	0.344	144	6.9.6	mostly clear
1420	20	1	93.28	17.94	5.13	6.91	0.347	149	21.1	clear
1430	30	1	93.28	17.87	5.09	6.88	0.342	151	17.7	clear
1436	35	1	93.30	17.14	5.14	6.85	0.338	153	9.92	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-016a
Date: 7/28/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 126
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 93.75 (TOC) 90.9 (bgs)
Depth to Water (ft): END: 95.55
Start Time: 1210
Total Volume Removed: 50

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (126 ft – 90.9 ft) * (0.1636 gal/ft) * (3)

V = 17.2 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1210	0	1	93.20	15.97	42.92	12.08	6.26	-158	614	mostly clear
1215	5	1	93.20	12.27	0.0	11.83	1.77	-157	166	mostly clear
1220	10	1	95.20	11.80	0.78	11.53	0.972	-121	91	clear
1235	25	1	95.50	11.81	2.04	11.22	0.686	-101	39	clear
1250	40	1	95.55	11.29	3.68	10.01	0.278	-48	14.3	clear
1300	50	1	95.55	11.79	3.84	9.63	0.264	-33	10	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-018
Date: 7/29/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 122 ft
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: DRY,
Depth to Water (ft): END: NA
Start Time: NA
Total Volume Removed: NA

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (122 ft – NA ft) * (0.1636 gal/ft) * (3)

V = NA gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0730	–	–	DRY	–	–	–	–	–	–	will reassess during high water

Remarks: 7/29/16 : well dry, unable to develop. wet sand/silt on bottom of well. will return to reassess.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-019a
Date: 7/28/10
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 220'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 139.6 (TOC) 137 (bgs)
Depth to Water (ft): END: 139.9 (TOC)
Start Time: 0840
Total Volume Removed: 120

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (220 ft – 137 ft) * (0.1636 gal/ft) * (3)

V = 40.7 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0840	0	1	140.0	11.32	7.33	11.40	2.36	-342	65.5	clear
0845	5	1	140.65	11.28	0.51	11.44	1.88	-387	>1000 out of range	turbid, brown
0900	20	1	140.35	11.68	0.11	9.56	0.513	-368	out of range	turbid, brown
0915	35	1	140.43	11.59	0.0	8.76	0.392	-314	out of range	turbid, faint brown
0930	50	1	140.44	11.45	0.0	7.99	0.371	-256	2422	faint brown
0945	65	1	140.50	11.44	0.0	7.87	0.372	-245	1208	slightly turbid faint white
1000	80	1	140.50	11.49	0.0	7.61	0.372	-220	678	mostly clear
1015	95	1	140.50	11.64	0.0	7.54	0.373	-206	397	mostly clear
1030	110	1	140.50	11.66	0.0	7.40	0.371	-188	254	mostly clear
1040	120	1	140.50	11.78	0.0	7.44	0.372	-189	124	mostly clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-022
Date: 7/23/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 80'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 67.80
Depth to Water (ft): END: 67.80
Start Time: 1415
Total Volume Removed: 25 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (80 ft – 67.80 ft) * (0.1636 gal/ft) * (3)

V = 5.98 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1430	15	1	67.85	10.12	11.39	7.30	.372	293	1.78	clear
1435	20	1	67.85	9.90	11.32	7.40	.372	289	1.80	clear
1440	25	1	67.85	10.15	10.19	7.46	.372	287	1.75	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-025a
Date: 7/26/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 95'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 43.00
Depth to Water (ft): END: 47.60
Start Time: 1535
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (95 ft – 43.00 ft) * (0.1636 gal/ft) * (3)

V = 25.5 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1600	25	1	68.60	12.63	0.00	8.70	.339	-335	MAX	brown/cloudy
1610	35	1	68.60	12.59	0.00	8.65	.347	-327	MAX	brown/cloudy
1620	45	1	68.60	12.56	0.00	8.51	.352	-326	125	brown/cloudy
1700	85	1	68.40	12.37	0.00	8.00	.365	-266	31.2	clear
1710	95	1	68.40	12.32	0.00	7.96	.368	-301	29.6	clear
1735	END									

Preliminary - Under EPA and MDEQ Review

Remarks:

Very silty to start pumping, pumped 2 hours

Turbidity collected w/ Seperate meter

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002

Project Name: Columbia Falls Aluminum Company Phase I RI

Well ID: CFMW-024

Date: 7/30/16

Developed by: Cascade Drilling

Method of Developing: Surge and Pump

Total Depth of Well (ft): 45 ft.

Well Diameter (in): 2"

Depth to Water (ft): BEGIN: ~~[illegible]~~ 34.3(bgs) 37.23(TOC)

Depth to Water (ft): END: 1540 37.35

Start Time: 1540 ~~37.35~~ SW

Total Volume Removed: 21 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (45 ft – 34.3 ft) * (0.1636 gal/ft) * (3)

V = 5.25 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1550	5	0.5	37.3	15.49	50	7.34	0.488	-84	843	Slight brown color, mostly clear
1555	7.5	0.5	37.3	20.82	11.36	7.14	0.526	-86	651	slightly brown
1600	10	0.5	37.3	27.09	1.22	6.91	0.521	-90	519	slight brown
1610	15	0.5	37.3	23.73	1.42	6.92	0.484	-89	127	slightly cloudy
1620	20	0.5	37.35	18.17	0.81	6.89	0.469	-65	23.4	mostly clear
1622	21	0.5	37.35	17.20	1.00	6.84	0.471	-39	9.44	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-027
Date: 7/29/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 45.8 ft
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: (pre-surge) 29.3 (TOC) 26.6 (bgs)
Depth to Water (ft): END: 29.55 (TOC)
Start Time: 1630
Total Volume Removed: 50 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (45.8 ft – 26.6 ft) * (0.1636 gal/ft) * (3)

V = 9.4 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1640	10	1	29.60	11.30	7.58	7.15	0.609	179	749	mostly clear, slightly cloudy
1645	15	1	29.70	9.89	2.29	6.95	0.623	216	169	mostly clear
1650	20	1	29.55	9.55	.25	6.98	0.634	227	103	slightly cloudy
1655	25	1	29.55	9.62	1.63	7.00	0.638	229	56.9	slightly cloudy
1700	30	1	29.55	9.59	2.27	7.05	0.638	235	42.1	clear
1720	50	1	29.55	9.60	8.16	7.20	0.321	233	9.9	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-028
Date: 7/25/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 60'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 41.40
Depth to Water (ft): END: 41.52 ↑
Start Time: 1505
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (60 ft – 41.40 ft) * (0.1636 gal/ft) * (3)

V = 9.12 gal 18.6

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1600	55	1	56.50*	14.48	12.45	8.00	.415	-230	43.7	clear
1605	60	1	56.50*	14.62	12.16	7.91	.414	-231	56.3	clear
1610	65	1	56.50*	14.48	12.89	7.91	.416	-220	53.9	clear
1615	70	1	56.50*	14.28	11.60	7.89	.414	-203	37.2	clear
1650	~~115~~ 105	1	56.50	13.85	14.60	7.79	.430	-87	26.1	clear
1655	~~120~~ 110	1	56.50	13.72	14.59	7.88	.433	-85	24.0	clear
1705	END 120									

Remarks:

* water level below top of pump; pump for 2 hours

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-028a
Date: 7/25/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 120'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 41.40
Depth to Water (ft): END: 43.1 ↑
Start Time: 1300
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (120 ft – 41.40 ft) * (0.1636 gal/ft) * (3)
786

V = 38.57 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1310	10	1	51.00	10.52	~~12.73~~ 9.23	11.94	1.61	-845	398	cloudy w/ particulate
1315	15	1	51.02	10.53	8.61	11.84	1.47	-859	288	cloudy w/ particulate
1320	20	1	51.02	10.36	8.51	11.86	1.40	-859	284	cloudy w/ particulate
1400	60	1	50.02	10.34	9.65	11.73	.680	-854	146	cloudy
1405	65	1	50.02	10.28	9.32	11.69	.633	-853	73.6	cloudy
1410	70	1	50.04	10.31	9.06	11.65	.595	-851	55.6	cloudy
1445	105	1	49.86	10.29	9.30	11.28	.382	-829	17.4	clear
1450	110	1	49.82	10.41	9.24	11.27	.371	-827	18.8	clear
1455	115	1	49.81	10.28	8.88	11.26	.360	-826	17.2	clear
1500	120	1	49.81	10.30	8.74	11.18	.337	-822	15.0	clear

Remarks:
Pump set to 115'; 2 hours

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-029
Date: 7/27/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 76'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 64.85 (pre-surge) TOC
Depth to Water (ft): END: 64.88
Start Time: Began pumping @ 0837
Total Volume Removed: 18 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (76 ft – 61.5 ft) * (0.1636 gal/ft) * (3)

V = 7.1166 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0840	3	1.0	64.8	9.66	5.29	9.66	0.438	259	31	clear
0845	8	1.0	64.85	9.50	6.30	7.84	0.458	291	5.79	clear
0850	13	1.0	64.90	9.48	4.30	7.85	0.458	292	5.14	clear
0855	18	1.0	64.88	9.51	4.28	7.73	0.461	297	3.78	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-032
Date: ~~8/20/16~~ 8/22/16 8-24-16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 58.3' (TOC)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 51.4 (TOC)
Depth to Water (ft): END: NM.
Start Time: 1035
Total Volume Removed: 11.5

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (58.3 ft – 51.4 ft) * (0.1636 gal/ft) * (3)
V = 3.4 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1040	5	0.1	51.22							Pumped 5gal
11:50										
1218										Dry 5gal
1035	0.1	0.1	51.24							
10.45	1	0.1	52.40	16.60	1050	6.64	1.31	215	744	
10.55	2	0.1	52.42	17.67	1.76	6.46	1.31	209	725	
11.00	2.5	0.1	52.46	17.92	7.44	6.45	1.29	204	386	
11:10	3.5	0.1	52.47	22.07	6.46	6.44	1.08	127	140	mostly clear
11:30	5.5	0.1	52.42	22.65	5.50	6.51	1.05	154	31.4	
11:45	7	0.1	52.27	24.81	4.74	6.73	.932	190	21.1	
12:00	8.5	0.1	52.32	25.29	4.90	6.73	.915	168	19.7	
1215	10	0.1	52.34	25.61	5.09	6.71	.887	173	10.0	
12:30	11.5	0.1	52.36	25.66	4.84	6.72	.878	188	9.1	

Remarks: 8/22/16: well went dry during piping. Return to pump another day
8/24/16: continue pumping at very slow rate (0.1 gpm)

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-032g
Date: 8/22/14
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 204.8 (bgs) 208.2 (TOC)
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 112.5 (TOC)
Depth to Water (ft): END: 165.81
Start Time: 1445
Total Volume Removed: 60

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (208.2 ft – 112.5 ft) * (0.1636 gal/ft) * (3)

V = 47 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (mS/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1530	22.5	0.5	171.84	20.70	0.19	12.92	8.67	-304	over-range	~~mostly clear~~ Sed cloudy
1540	27.5	0.5	169.98	21.37	0.00	12.52	8.37	-330	556	cloudy
1545	30	0.5	168.65	21.42	0.0	12.53	8.34	-347	264	cloudy
1600	37.5	0.5	166.81	19.98	0.00	12.56	7.39	-382	171	
1615	45	0.5	164.02	19.69	0.00	12.49	6.43	-373	160	
1630	57.5	0.5	166.12	19.21	0.00	12.52	5.98	-366	98.6	
1645	60	0.5	165.81	18.66	0.00	12.56	5.42	-349	70.0	

Remarks: well started to dewater at normal pumping rate of 1 gpm. When pump level reduced, water level stabilized ~ 168 ft below TOC

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-033
Date: 7/23/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 60'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 43.30
Depth to Water (ft): END: 43.30
Start Time: 1205
Total Volume Removed: 28 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (60 ft – 43.30 ft) * (.1636 gal/ft) * (3)

V = 7.7 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1218	18	1	43.20	8.98	11.63	7.28	.501	337	6.63	clear
1223	23	1	43.20	8.90	11.29	7.26	.501	340	3.82	clear
1228	28	1	43.20	8.78	10.12	7.26	.501	340	2.67	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-034
Date: 7/22/2016
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 60'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 40.35
Depth to Water (ft): END: 43.26
Start Time: 8:50 am
Total Volume Removed: 40

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (60 ft – 40.35 ft) * (.1636 gal/ft) * (3)
V = 10.33 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
9:00	2	.20	41.75	12.05	10.18	7.4	.502	250	675	light Brown
9:16	6	.25	42.95	12.59	8.11	7.14	.496	277	119	light Brown
9:26	8	.20	42.95	13.04	7.47	7.29	.486	275	90.7	Cloudy
9:36	10	.20	42.95	13.61	6.90	7.33	.483	268	90.2	Cloudy
9:49	12	.20	42.95	13.84	6.90	7.30	.480	266	80.4	Clear
10:03	14	.20	42.95	13.92	6.54	7.37	.480	270	78.2	clear
10:13	16	.20	42.95	14.19	6.41	7.32	.478	267	68.0	clear
10:20	17.5	.20	42.95	14.50	6.28	7.25	.477	270	60.8	clear
10:30	20.5	.30	43.05	14.49	6.28	7.23	.480	286	27.1	clear
10:35	22.5	.40	43.21	14.55	6.28	7.16	.507	288	30.2	clear
10:40	25	.50	43.25	14.50	6.28	7.14	.509	290	15.6	clear
10:45	27.5	.50	43.25	14.60	6.28	7.17	.508	293	15.9	clear
10:50	30	.50	43.25	14.62	6.29	7.17	.508	290	13.2	clear
10:55	35	1.0	43.40	—	—	—	—	—	—	
11:00	40	1.0	43.40	—	—	—	—	—	—	

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-035
Date: 7/21/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 70
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 42.18
Depth to Water (ft): END: 58.25
Start Time: 1435
Total Volume Removed: 33

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (70 ft – 42.8 ft) * (.1636 gal/ft) * (3)
V = 13.34 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1437	1	0.5	47.00	NA	NA	NA	NA	NA	NA	Light Brown
1447	6	0.5	58.36	NA	NA	NA	NA	NA	NA	Light Brown
1457	8.5	0.25	56.21	NA	NA	NA	NA	NA	NA	Light Brown
1507	11	0.25	55.29	NA	NA	NA	NA	NA	NA	light Brown
1517	14	0.30	60.02	16.75	5.26	7.01	.752	120	NA	Cloudy
1527	17	0.30	60.15	19.15	4.10	6.61	.795	166	NA	Cloudy
1547	23	0.30	56.2	16.53	5.19	6.94	.815	75	NA	cloudy
1607	27	0.20	57.9	17.81	3.87	7.02	.876	52	NA	clear
1627	31	0.20	56.37	17.95	3.37	7.13	.891	23	NA	clear
1637	33	0.20	58.25	18.09	4.30	7.02	.896	27	NA	clear

Remarks:
NA - Horiba was not working. Sensors cleaned and Turbidity meter not working. Ordered new Turbidity meter for use tomorrow.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-037
Date: 7/22/2016
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 100
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 74.93
Depth to Water (ft): END: 81.93
Start Time: 12:05
Total Volume Removed: 72 gal

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (100 ft – 74.93 ft) * (.1636 gal/ft) * (3)

V = 12.30 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1210	2.5	0.5	79.5	16.75	12.34	7.28	.368	140	893	light Brown
1220	7.5	0.5	79.75	16.70	9.05	7.15	.368	153	775	light Brown
1235	15	0.5	80.19	15.50	8.82	7.43	.364	184	320	Cloudy
1245	20	0.5	80.45	15.34	8.38	7.63	.366	180	191	Cloudy to clear
1300	27.5	0.5	80.62	15.37	8.27	7.40	.367	204	147	Clear
1315	35	0.5	80.21	16.64	7.80	7.58	.366	196	92.4	Clear
1320	38.75	0.75	82.50	15.20	8.10	7.68	.364	194	76.6	Clear
1330	46.25	0.75	82.15	17.88	7.15	7.65	.358	197	75.0	Clear
1340	53.75	0.75	81.98	14.95	7.28	7.48	.362	235	57.4	clear
1350	60.25	0.75	81.95	14.50	7.10	7.40	.362	245	53.0	clear
1400	67.75	0.75	81.80	14.25	7.25	7.37	.363	249	50.0	Clear
1405	72	0.75	81.93	14.10	7.08	7.35	.363	247	51.8	Clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-038
Date: 8/3/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 107.80 (TOC)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 85.96 (TOC)
Depth to Water (ft): END: 86.02 (TOC)
Start Time: 1648
Total Volume Removed: 27 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (107.80 ft – 85.96 ft) * (0.1636 gal/ft) * (3)
21.84

V = 10.7 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1700	12	1	87.79	11.26	0.75	7.41	.590	292	10.2	Clear
1710	22	1	87.90	11.16	0.36	7.35	.590	290	8.76	Clear
1715	27	1	87.90	11.03	0.24	7.36	.590	290	5.32	Clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002

Project Name: Columbia Falls Aluminum Company Phase I RI

Well ID: CFMW-40 (West Rectifier Yard)

Date: 7/23/16

Developed by: Cascade Drilling

Method of Developing: Surge and Pump

Total Depth of Well (ft): 90'

Well Diameter (in): 2"

Depth to Water (ft): BEGIN: 74.50

Depth to Water (ft): END: 73.80

Start Time: 0830

Total Volume Removed: ~~100~~ 25 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (90 ft – 74.5 ft) * (0.1636 gal/ft) * (3)

V = 7.6 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0830	0	1	~90	9.64	14.96	7.39	.409	-139	81.1	cloudy
0841	10	1	77.30	9.54	12.86	7.54	.530	274	36.5	clear to cloudy
0851	20	1	77.30	9.65	12.56	7.50	.529	278	9.58	clear
0856	25	1	77.32	9.65	12.48	7.50	.529	279	9.38	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002

Project Name: Columbia Falls Aluminum Company Phase I RI

Well ID: CFMW-~~0136~~042

Date: 7/23/16

Developed by: Cascade Drilling

Method of Developing: Surge and Pump

Total Depth of Well (ft): 60'

Well Diameter (in): 2"

Depth to Water (ft): BEGIN: 52.10

Depth to Water (ft): END: 52.10

Start Time: 1024

Total Volume Removed: 40 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (60 ft - 52.10 ft) * (.1636 gal/ft) * (3)

V = 3.87 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1035	10	1	52.30	9.17	13.81	7.23	.545	300	206	cloudy
1040	15	1	52.30	9.17	13.20	7.21	.547	305	130	cloudy
1045	20	1	52.30	9.35	12.78	7.19	.546	307	58.2	clear/cloudy
1050	25	1	52.30	9.06	12.63	7.19	.548	309	28.5	clear/cloudy
1055	30	1	52.30	9.25	12.07	7.30	.548	305	16.4	clear/cloudy
1100	35	1	52.30	9.10	12.00	7.37	.548	302	13.2	clear
1105	40	1	52.30	9.08	11.96	7.43	.549	300	9.18	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-043
Date: 7/25/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 60'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 45.40
Depth to Water (ft): END: 45.40
Start Time: 0840
Total Volume Removed: 105 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (60 ft – 45.40 ft) * (.1636 gal/ft) * (3)
14.6

V = 7.16 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0910	30	1	45.40	9.40	13.36	7.09	.557	284	73.2	cloudy
0915	35	1	45.40	9.42	10.51	7.08	.555	286	73.1	cloudy
0920	40	1	45.40	9.45	10.81	7.38	.555	267	67.5	cloudy
1000	80	1	45.40	9.42	12.67	7.40	.548	283	28.7	Clear/cloudy
1005	85	1	45.40	9.48	12.58	7.41	.547	282	20.6	Clear/cloudy
1030	100	1	45.40	9.56	11.37	7.44	.549	284	8.99	Clear
1035	105	1	45.40	9.56	11.45	7.39	.549	289	6.40	Clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-044a
Date: 8/3/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 110' (as installed) 112.88 (TOC)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 50.06 (TOC)
Depth to Water (ft): END: 67.29 (TOC)
Start Time: 0905
Total Volume Removed: 67.5 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (112.88 ft – 50.06 ft) * (0.1636 gal/ft) * (3)

V = 30.8 gal 62.82

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1010	48.75	.75	70.50	11.68	0.00	11.95	8.25	-62	392	clear / Slightly cloudy
1015	52.5	.75	75.70	10.73	0.00	12.78	8.08	-279	118	clear / Slightly cloudy
1025	60	.75	75.74	10.56	0.00	12.92	8.02	-313	17.2	clear
1030	63.75	.75	75.74	10.57	0.00	12.93	8.04	-330	11.6	clear
1035	67.5	.75	75.75	10.60	0.00	12.95	8.13	-349	8.72	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-045
Date: 8/24/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 99
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 84.20 (TOC)
Depth to Water (ft): END: NM
Start Time: 8:45
Total Volume Removed: 30

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (99 ft – 84.20 ft) * (0.1636 gal/ft) * (3)
V = 7.2 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
900	7.5	.5	84.81	14.98	8.54	6.26	0.559	223	916	Brown
905	10	.5	84.75	15.44	6.00	6.43	.557	233	354	cloudy
9:10	12.5	.5	84.71	15.56	5.95	6.49	.555	238	159	
9:15	15	.5	84.72	15.51	5.59	6.53	.553	242	95.7	clear
9:30	22.5	.5	84.74	17.13	6.28	6.62	.563	246	26.7	
940	27.5	.5	84.76	17.39	6.23	6.70	.552	247	.06	
9:45	30	.5	84.76	17.20	6.21	6.71	.551	248	9.4	

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-045a
Date: 5-23-16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 159.8
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 89.3
Depth to Water (ft): END: 113.20
Start Time: 12:20
Total Volume Removed: 60

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (159.8 ft – 89.3 ft) * (0.1636 gal/ft) * (3)

V = 35 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
14:30	5	.5	104.80	20.25	26.74	10.55	1.24	-13	679	
14:35	(5) 10 7.5	.5	103.88	20.23	3.59	10.58	1.23	-61	499	
1440	10	.5	104.12	20.46	3.07	10.66	1.10	-86	384	
1445	12.5	.5	103.9	20.48	5.46	10.65	0.927	-97	208	clear
1450	15	.5	103.5	20.26	5.84	10.65	.819	-103	153	
1500	20	.5	106.1	19.13	0.0	10.97	1.34	-115	906	
1510	25	.5	109.83	19.56	1.11	10.81	.983	-123	326	
1520	30	.5	103.1	20.07	0.0	10.79	.925	-126	301	
1530	35	.5	103.56	19.86	0.0	10.55	.802	-129	207	
1545	47.5	.5	108.30	18.70	0.0	10.66	1.06	-154	503	
1600	50	.5	111.02	16.91	0.0	10.68	0.521	-146	168	
1610	55	.5	112.70	16.45	0.0	10.80	0.749	-123	344	
1620	60	.5	113.20	16.65	0.0	10.81	0.831	-123	291	

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-047
Date: 7/22/2016
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 120
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 98.5
Depth to Water (ft): END: 99.38
Start Time: 2:50 pm
Total Volume Removed: 40 gallon

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (120 ft – 98.5 ft) * (.1636 gal/ft) * (3)

V = 10.55 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
3:00	5	0.5	99.70	13.07	9.22	7.75	.406	250	453	Cloudy
3:15	12.5	0.5	99.35	13.26	8.35	7.17	.420	289	71.5	Clear
3:25	17.5	0.5	99.38	13.02	8.49	7.18	.420	292	59.7	Clear
3:35	22.5	0.5	99.40	12.81	8.37	7.27	.422	291	52.0	Clear
3:45	27.5	0.5	99.34	13.24	8.18	7.26	.420	289	31.9	Clear
3:55	32.5	0.5	99.36	13.46	7.95	7.42	.418	278	17.2	Clear
4:00	35	0.5	99.40	13.33	7.99	7.46	.417	280	12.6	Clear
4:10	40	0.5	99.38	13.26	7.85	7.52	.418	275	9.6	Clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-049a
Date: 8/26/2016
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 148.5' (bgs)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 103.9
Depth to Water (ft): END: NA
Start Time: 8:15
Total Volume Removed: 120

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (148.5 ft – 103.9 ft) * (0.1636 gal/ft) * (3)
V = 22 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
8:20	5	1	111.62	12.29	9.96	11.21	3.23	-166	68	gray
8:25	10	1	111.64	11.82	7.15	11.42	2.89	-178	10	Clear
8:35	20	1	112.21	11.24	3.43	11.61	2.32	-193	12.2	Clear
8:40	25	1	112.30	11.17	4.00	11.56	2.40	-193	15.9	
8:45	30	1	112.95	11.15	3.81	11.56	2.42	-192	18.7	
9:00	45	1	112.61	11.27	2.14	11.88	2.82	-215	65.6	
9:15	60	1	109.30	11.52	1.10	11.84	2.56	-213	143	
9:30	75	1	108.64	11.57	.18	11.84	2.53	-214	170	
9:45	90	1	108.34	11.96	0.00	11.81	2.44	-214	183	Clear
10:00	105	1	107.41	12.24	0.00	11.80	2.38	-214	221	
10:15	120	1	107.50	12.27	0.00	11.80	2.37	-214	239	

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-050
Date: 8/2/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 120' (as installed) 120.5 (bgs)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 101.90 (bgs)
Depth to Water (ft): END: 101.98 (bgs)
Start Time: 1700
Total Volume Removed: 25 gallons

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (120.5 ft – 101.90 ft) * (0.1636 gal/ft) * (3)
V = 9.12 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	(TOC) DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1715	15	1	104.90	23.35	13.13	8.89	.401	88	33.5	clear
1720	20	1	105.02	16.72	9.77	7.86	.403	231	10.19	clear
1725	25	1	105.02	15.69	9.05	7.64	.400	247	6.83	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-053a
Date: 8/24/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 160.3 (TOC)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 86.87
Depth to Water (ft): END: NA
Start Time: 12:55
Total Volume Removed: 22.5 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (160.3 ft – 86.87 ft) * (0.1634 gal/ft) * (3)
73.43

V = 36.0 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1505	5	.5	110.21	16.11	13.16	10.70	.506	-11	225	
1515	10	.5	111.05	17.38	8.48	10.65	1.32	-42	231	
1520	12.5	.5	111.25	17.11	10.73	10.90	2.50	-56	89.7	clear
1525	15	.5	111.16	17.25	11.33	11.15	4.08	-70	35.8	"
1530	17.5	.5	110.45	17.39	11.24	11.32	5.52	-80	30.6	"
1535	20	.5	111.05	17.39	10.57	11.48	7.01	-90	10.1	
1540	22.5	.5	111.45	17.33	9.52	11.64	8.18	-103	9.0	

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-054
Date: 7/23/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 85'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 73.80
Depth to Water (ft): END: 74.98
Start Time: 1600
Total Volume Removed: ~90 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (85 ft – 73.80 ft) * (0.1636 gal/ft) * (3)

V = 5.98 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1625	25	1	74.30	10.49	13.45	7.32	.561	345	29.6	clear
1630	30	1	74.30	10.35	13.38	7.48	.561	338	32.9	clear
1635	35	1	74.81	10.45	13.17	7.72	.524	324	38.7	clear
1640	40	1	74.81	10.20	13.20	7.41	.561	342	42.6	clear
1645	45	1	74.90	10.10	13.13	7.60	.561	333	92.6	clear/cloudy
1725	85	1	75.00	10.15	16.25	7.57	.562	338	6.58	clear
1730	90	1	75.00	9.99	15.97	7.55	.562	343	6.38	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-056a
Date: 7/26/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump + bail

Total Depth of Well (ft): 135' bgs 137.5 (TOC)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 64.90 (7/26/16) 78.60 (TOC)
Depth to Water (ft): END:
Start Time: 7/26/16 @ 0850 8/4/16 @ 0740
Total Volume Removed: 47.75 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes) INITIAL CALCULATION

V = (135 ft – 64.90 ft) * (0.1636 gal/ft) * (3)

V = 34.4 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

	TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
7/26	0850	-	-	DRY	-	-	-	-	-	-	Very silty
7/26	1300	-	-	DRY	-	-	-	-	-	-	Very silty
7/26	-	-	-	-	-	-	-	-	-	-	Allow to recharge
8/4	0747	35.25	.75	117.23	8.38	1.39	10.78	.633	-207	275	clear
8/4	0752	37.75	.50	>120*	8.37	0.00	11.08	.670	-214	189	clear
8/4	0757	40.25	.50	>120*	8.51	0.00	11.20	.798	-245	484	clear
8/4	0802	41.50	.25	>120*	8.44	0.00	11.17	.741	-232	351	clear
8/4	0807	42.75	.25	>120*	8.38	0.00	11.15	.707	-229	272	clear
8/4	0822	46.5	.25	>120*	9.13	0.00	11.07	.605	-225	61.8	clear
8/4	0827	47.75	.25	DRY	-	-	-	-	-	-	clear

Remarks: 7/26/16 Pumped well dry several times water still very silty and turbid. Pumped ~30 gallons. Will allow for recharge and assess at later date

8/4/16 - * water below top of pump. Pumped until well went dry @ 0827. Removed 47.75 gallons total. Water clear and turbid. Not dropping. Will consider well developed.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-056b
Date: 7/26/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 60
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 32.10
Depth to Water (ft): END: 32.63
Start Time: 1305
Total Volume Removed: 45 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (60 ft – 32.10 ft) * (0.1636 gal/ft) * (3)

V = 13.7 gal 27.9

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1315	10	1	33.40	9.54	7.69	6.84	.482	65	28.6	clear/slightly cloudy
1320	15	1	33.40	9.46	7.75	6.87	.481	62	18.0	clear
1325	20	1	33.40	9.46	7.77	7.45	.482	31	15.5	clear
1330	25	1	33.40	9.45	7.88	7.41	.481	33	13.7	clear
1335	30	1	33.40	9.44	7.98	7.41	.481	34	12.0	clear
1340	35	1	33.40	9.45	7.95	7.46	.481	32	11.9	clear
1345	40	1	33.40	9.45	7.94	7.47	.481	32	10.6	clear
1350	45	1	33.40	9.46	7.94	7.46	.481	31	9.73	clear

Preliminary - Under EPA and MDEQ Review

Remarks:

Turbidity collected w/ seperate meter

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-057a
Date: 8/15/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 140.4 (TOC)
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 72.18 (TOC)
Depth to Water (ft): END: NM
Start Time: 1113
Total Volume Removed: 15.25 (on 8/15/16)

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (140.4 ft – 72.18 ft) * (.1636 gal/ft) * (3)

V = 33.5 gal 68.22

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1123	48	1	>98' *	13.82	7.37	10.66	.458	-109	39.9	clear
1128	53	1	798' *	16.73	6.01	1057	.467	-110	39.4	well slow recharge pump rate less going forward
1130	—	—	—	—	—	—	—	—	—	Pump stopped due to lack of water.
1255	53.25	.25	121.16	—	—	—	—	—	—	Pump restarted clear water
1256	53.25	—	DRY	—	—	—	—	—	—	Well dry 2nd time

Preliminary - Under EPA and MDEQ Review

Remarks:
well previously bailed and surged. Jetted silts and resurged.
Initial water grey silty/cloudy
*98 top of pump
well considered developed. During sampling will have slow recharge.

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-05~~7~~a
Date: 8/5/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): ~138' (as installed)
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 90.92 (TOC)
Depth to Water (ft): END: 105.30 (TOC) night after pump failed
Start Time: 0920
Total Volume Removed: 38 gallons total

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (138 ft – 90.92 ft) * (0.1636 gal/ft) * (3)

V = 23.1 gal 47.08

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0928	~22	>.25	107.38	21.24	7.25	11.15	5.66	89	118	clear
0935	~25.5	>.25	114.90	15.43	0.00	12.75	10.80	-280	88.2	clear
0942	~30	>.25	116.82	17.97	0.00	12.75	10.7	-282	14.1	clear
0950	~38	>.25	116.98	19.96	0.00	12.69	10.5	-276	8.82	clear

Remarks:

DTB measured 130.5 TOC but slightly sticky on sides
Recharge slow but recharges. Will attempt to clean silts at later date.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-057a
Date: 8/3/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 138' (as installed)
Well Diameter (in): 2" PVC
Depth to Water (ft): BEGIN: 35.00 (TOC)
Depth to Water (ft): END: NA
Start Time: 1430 (8/3/16)
Total Volume Removed: NA

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (138 ft – 35 ft) * (0.1636 gal/ft) * (3)
V = 50 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1445	11.25	.75	91.60	11.96	5.48	12.02	2.18	-65	MAX	cloudy
1450	16.25	moved up 1	115.02	12.28	2.17	12.13	2.17	-110	MAX	cloudy
1455	20	>.25	DRY	-	-	-	-	-	-	clear / cloudy
1520	–	–	107.65	–	–	–	–	–	–	Allowing to recharge however fairly stable at 107
–	-	–	–	–	–	–	–	-	–	will reassess

Remarks:
8/3/16 Note - developed prior to wellpad / monument construction
DTB - 126.40 (TOC); will bail out silts in bottom first.
Purged ~20 gallons from initial water column. will allow for recharge and reassess

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-059
Date: 8/2/16
Developed by: Cascade Drilling / Alt
Method of Developing: Surge and Pump

Total Depth of Well (ft): 90 (as installed) 93.0 (TOC) ~~bgs~~
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 69.75 (TOC) 67.20 (bgs)
Depth to Water (ft): END: 69.93 (TOC)
Start Time: 1215
Total Volume Removed: 25 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (90 ft – 69.75 ft) * (0.1636 gal/ft) * (3)

V = 9.94 gal 20.25

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1220	5	1	72.80	12.35	6.05	7.22	.599	21	448	clear/slight cloudy
1225	10	1	72.83	11.55	6.79	7.12	.608	37	68.1	clear
1230	15	1	72.83	11.48	7.22	7.12	.614	44	13.6	clear
1235	20	1	72.83	11.88	7.59	7.13	.613	50	11.4	clear
1240	25	1	72.83	11.85	7.65	7.12	.616	53	8.21	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-059a
Date: 8/2/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 168 (as installed)
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: ~70' (TOC) meter not clear
Depth to Water (ft): END: 87.62 (TOC)
Start Time: 1345
Total Volume Removed: 70.5 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (168 ft – 70 ft) * (0.1636 gal/ft) * (3)
98

V = 44.17 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1345	3	1	–	–	–	–	–	–	–	very silty grey
1400	18	1	101.60	–	–	–	–	–	–	very silty grey
1420	28	.5	101.60	16.54	0.00	12.65	6.80	-475	MAX	Silty; gry
1425	30.5	.5	101.60	16.66	0.00	12.59	6.37	-522	MAX	Silty; gry
1445	40.5	.5	101.60	18.59	0.00	12.62	5.95	-543	MAX	Slightly cloudy
1535	65.5	.5	101.60	18.20	0.00	12.69	5.50	-521	MAX	Slightly cloudy
1615	70.5	.5	101.60	18.16	0.00	12.70	5.32	-563	>1000	Slightly Cloudy

Remarks:

DTB initially measured 158.3 - will bail silty material in bottom
Remove ~2/3 gallons tight grey/light brown silt. New DTB 164. Will surge to break up hard silt in bottom.
DTW difficult to measure due to sensor sensativity/unknown factors

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-061
Date: 7/30/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 23.0'
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 13.20 (TOC) 9.90 (bgs)
Depth to Water (ft): END: 13.18
Start Time: 1225
Total Volume Removed: 30 gallons

Minimum volume V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)
to be removed: V = (23 ft – 13.2 ft) * (0.1636 gal/ft) * (3)
V = 5 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1235	5	0.5	13.18	20.03	1.40	7.10	0.474	-77	474	light brown, slightly turbid
1250	12.5	0.5	13.18	19.97	0.0	6.95	0.468	-106	81.8	slightly cloudy
1305	20	0.5	13.18	20.25	0.0	6.83	0.467	-127	21.3	mostly clear
1315	25	0.5	13.18	20.84	0.0	6.83	0.468	-126	12.8	clear
1325	30	0.5	13.18	20.87	0.0	6.84	0.464	-123	10.0	clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-064
Date: 7/30/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 30
Well Diameter (in): 2"
Depth to Water (ft): BEGIN: 13.75 (TOC) 10.7 (bgs)
Depth to Water (ft): END: 13.81
Start Time: 0905
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (30 ft – 10.7 ft) * (0.1636 gal/ft) * (3)

V = 9.5 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0915	10	1	14.03	9.43	8.80	6.95	0.431	-241	1706	Slightly turbid, faint brown
0925	20	1	14.00	9.42	2.82	6.76	0.431	-229	531	slightly cloudy / white
0935	30	1	14.00	9.37	0.0	7.20	0.430	-203	212	mostly clear, faint white
0945	40	1	14.00	9.34	0.0	7.34	0.430	-179	139	mostly clear, faint white
0955	50	1	14.00	9.38	0.0	7.38	0.431	-170	127	mostly clear
1005	60	1	13.95	9.42	0.0	7.43	0.431	-158	61.9	mostly clear
1025	80	1	13.95	9.39	0.0	7.65	0.431	-138	30.17	mostly clear
1045	100	1	13.93	9.38	0.0	7.64	0.431	-124	25.7	mostly clear
1105	120	1	13.81	11.35	0.0	7.52	0.430	-115	58.1	mostly clear

Remarks: Pump was turned down at the end, likely contributing to to increase in turbidity at the end.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW10/CFMW-023
Date: 8/19/16 & 8/23/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 144.90 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 123.44 (TOC)
Depth to Water (ft): END: NM
Start Time: 0745
Total Volume Removed: 25

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (144.9 ft – 123.44 ft) * (1.4726 gal/ft) * (3)

V = 94.8 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
7:55	10	1	124.51	8.44	12.90	607	.443	133	12.7	clear
8:00	15	1	124.87	8.37	7.76	624	.495	139	10.80	clear
8:05	20	1	124.91	8.29	1.25	650	.431	151	9.10	clear
8:10	25	1	124.92	8.24	0.24	656	.430	158	8.9	clear

Remarks: Pump malfunction (8/19/16). Surge completed. Will return with new pump another day.
8/23/16: return with new pump.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW11 / CFMW-056
Date: 8/18/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 180.60 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 86.10 (TOC)
Depth to Water (ft): END: 87.89 (TOC)
Start Time: 0810
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (180.60 ft – 86.10 ft) * (1.4726 gal/ft) * (3)

V = 417 gal 94.5

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
915	65	1	89.90	9.67	0.00	6.10	0.369	-177	115	clear
925	75	1	89.90	9.65	0.00	7.10	0.369	-242	84.2	clear
935	85	1	89.52	9.85	0.00	7.51	0.372	-260	87.4	clear
950	100	1	89.52	10.26	0.00	7.51	0.372	-262	86.9	clear
1010	120	1	89.48	10.25	0.00	7.45	0.373	-260	114	clear

Preliminary - Under EPA and MDEQ Review

Remarks:
Remove downhole equipment - 160 ft piping, electrical, and pump
Per records, open bottom well with no screen; no need to surge

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW-12 / CFMW-057
Date: 8/15/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 184.50 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 83.00 (TOC)
Depth to Water (ft): END: 83.26 (TOC)
Start Time: 1310
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (184.50 ft – 83.26 ft) * (1.4726 gal/ft) * (3)

V = 447.25 gal 101.24

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1315	5	1	83.60	8.95	0.00	8.31	.304	-333	MAX	Grey cloudy
1420	70	1	83.61	9.59	1.20	7.07	.383	-125	263	blackparticulates
1440	90	1	83.61	10.00	0.00	7.46	.382	-154	358	black particulates
1510	120	1	83.61	10.21	0.00	7.41	.382	-148	358	black particulate

Remarks:
Removed piping, electrical and pump - 147' of piping

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW16/CFMW-053
Date: 8/5/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 76.30 (TOC)
Well Diameter (in): 4" PVC
Depth to Water (ft): BEGIN: 54.05 (TOC)
Depth to Water (ft): END: 54.05 (TOC)
Start Time: 1115
Total Volume Removed: 45 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (76.30 ft – 54.05 ft) * (.6545 gal/ft) * (3)

V = 43.6 gal 22.85

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1118	3	1	55.80	15.01	9.29	8.16	.522	258	MAX	brown silty
1128	13	1	55.83	12.86	7.04	7.47	.535	275	131	cloudy
1138	23	1	55.86	12.63	7.12	7.39	.534	293	9.73	Clear
1148	33	1	55.86	12.93	7.05	7.38	.535	294	8.21	Clear
1158	43	1	55.86	12.70	7.05	7.39	.534	293	6.54	clear
1200	45	1	55.86	12.82	7.11	7.39	.534	293	4.98	Clear

Remarks:

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW1/CFMW-044b
Date: 8/16/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 241.70 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 63.10 (TOC)
Depth to Water (ft): END: 63.21 (TOC)
Start Time: 0910
Total Volume Removed: 90 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (241.70 ft – 63.10 ft) * (1.4726 gal/ft) * (3)

V = _____ gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0920	7.5	.75	66.30	10.51	0.00	7.96	0.265	-357	77	clear with brown part.
0930	15	.75	66.30	10.58	0.00	8.28	0.274	-376	76.4	clear w/ brown part.
0940	22.5	.75	66.30	10.71	0.00	7.88	0.285	-362	74.1	clear w/ brown part.
0950	30	.75	66.30	10.81	0.00	7.84	0.300	-364	83.5	clear w/ brown part
1050	65	.75	66.72	11.31	0.00	7.48	0.380	-269	419	cloudy w/ brown part.
1100	82.5	.75	66.72	11.56	0.00	7.47	0.385	-282	346	cloudy w/ brown part.
1110	90	.75	66.72	11.49	0.00	7.44	0.387	-282	247	cloudy w/ brown part.

Remarks:
Removed pump, piping and electrical - 230 ft piping
Open bottom well per records. Will not surge. Pump sitting ~190/200' bgs

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW3/CFMW-007
Date: 8/20/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 163.5 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 80.00 (TOC)
Depth to Water (ft): END: 80.05
Start Time: 0930
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (163.5 ft – 80.00 ft) * (1.4726 gal/ft) * (3)

V = 368.9 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1000	30	1	80.05	9.61	19.34	5.39	0.384	150	459	cloudy
1015	45	1	80.05	9.07	5.36	6.77	0.339	128	882	cloudy
1030	60	1	80.05	9.24	5.50	6.96	0.339	134	601	cloudy
1045	75	1	80.05	8.82	5.02	7.05	0.339	145	298	somewhat cloudy
1100	90	1	80.05	8.84	5.14	7.14	0.339	145	187	partly cloudy
1115	105	1	80.05	9.08	5.66	7.40	0.340	134	134	somewhat clear
1130	120	1	80.05	9.42	6.22	7.39	0.340	137	83.5	mostly clear

Remarks: No down well equipment. MT Bureau of Mines Pressure Transducer in the well. Remove for surge and pumping.

- End pumping after 2 hours, final turbidity at 83.5 NTU.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: TW8/CFMW-020
Date: 8-23-16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 132.8
Well Diameter (in): 6"
Depth to Water (ft): BEGIN: 101.12
Depth to Water (ft): END: 101.13
Start Time: 10:00
Total Volume Removed: 120

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (132.8 ft – 101.12 ft) * (1.4726 gal/ft) * (3)

V = 140 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
10:05	5	1	101.16	9.96	6.34	6.58	.385	135	530	Redish Brown
10:10	10	1	101.14	9.98	2.24	6.76	.386	132	508	
10:15	15	1	101.14	10.29	0.00	6.84	.390	108	310	
10:30	30	1	101.14	11.06	1.32	6.86	.394	109	265	
10:45	45	1	101.13	11.52	0.32	6.73	.394	114	190	
11:00	60	1	101.12	11.44	0.03	6.67	.390	116	127	clear
11:15	75	1	101.13	11.68	0.34	6.67	.393	116	80.5	clear
11:30	90	1	101.13	11.75	0.80	6.67	.392	116	55.3	
11:45	105	1	101.13	11.62	1.02	6.62	.391	119	38.4	
12:00	120	1	101.13	12.05	1.62	6.66	.392	116	16.5	clear

Remarks: Remove down hole equipment - 140 ft of piping, electrical, and pump

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: IW9 / CFMW-008
Date: 8/17/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 188.30 TOC
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 40.70 TOC
Depth to Water (ft): END: NM
Start Time: 1240
Total Volume Removed: 60 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (188.30 ft – 40.70 ft) * (1.4726 gal/ft) * (3)
147.6

V = 652 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1400	40	.5	75.60	11.03	0.00	8.71	0.524	-339	114	Clear
1410	45	.5	79.62	10.91	0.00	8.90	0.489	-416	105	clear
1420	50	.5	89.20	11.03	0.00	8.90	0.481	-423	101	clear
1430	55	.5	94.45	11.37	0.00	8.91	0.461	-436	84.9	clear
1445	60	.5	99.75	11.64	0.00	8.17	0.441	-454	80.1	clear

Remarks:
Pulled/Removed piping, pump and electrical - 150 ft piping removed
Per records well open bottom w/ no screen so no surging needed.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: WO-CFMW2 / CFMW-031
Date: 8/5/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 52.30 (TOC)
Well Diameter (in): 2" OD (ID smaller than 2")
Depth to Water (ft): BEGIN: 43.32 (TOC)
Depth to Water (ft): END: 43.31 (TOC)
Start Time: 0822
Total Volume Removed: 22.5 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (52.30 ft – 43.32 ft) * (0.1636 gal/ft) * (3)

V = 4.4 gal 8.98

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0837	11.25	.75	43.40	10.41	7.89	6.18	.444	280	37	clear
0842	15.50	.75	43.40	10.55	5.61	6.79	.444	292	22.8	clear
0847	18.75	.75	43.40	11.00	5.51	6.93	.445	295	13.9	clear
0852	22.50	.75	43.40	11.24	5.49	7.00	.444	298	8.73	clear

Preliminary - Under EPA and MDEQ Review

Remarks:

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: W10 - TW22 / CFMW-0256
Date: 8/16/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 66.20 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 34.30 (TOC)
Depth to Water (ft): END: 34.86 (TOC)
Start Time: 1315
Total Volume Removed: 95 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (66.20 ft – 34.30 ft) * (1.4726 gal/ft) * (3)

V = 140.93 gal 31.9

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1320	5	1	41.00	–	–	–	–	–	–	very grey silty
1420	65	.5	42.10	14.46	0.00	7.19	0.404	-32	218	Cloudy
1435	72.5	.5	42.10	13.90	0.00	7.31	0.405	-71	170	clear
1450	80	.5	42.10	14.19	0.00	7.32	0.409	-65	73.3	clear
1500	85	.5	42.12	13.50	0.00	7.55	0.411	-92	60.2	clear
1510	90	.5	42.12	13.49	0.00	7.37	0.412	-78	14	clear
1515	95	.5	42.12	13.50	0.00	7.42	0.412	-86	9.67	clear

Remarks:
Removed piping, pump & electrical – 50' piping
Initial water too silty to run through Horiba

Preliminary – Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: W11-TW17 / CFMW-012
Date: 8/4/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 81.82 (TOC)
Well Diameter (in): 5"
Depth to Water (ft): BEGIN: 73.00 (TOC)
Depth to Water (ft): END: 73.92 (TOC)
Start Time: 1510
Total Volume Removed: 30 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (81.82 ft – 73.00 ft) * (1.0227 gal/ft) * (3)
8.82

V = 27.0 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1520	7.5	.75	77.80	17.04	4.66	7.73	.910	315	11.1	
1535	18.75	.75	77.80	17.04	3.65	7.95	.941	290	9.8	
~~1545~~		~~.75~~								
1600	30	.75	77.80	16.63	2.93	8.11	.951	279	6.2	

Preliminary - Under EPA and MDEQ Review

Remarks:
Note - no fines observed so surging not applicible.

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002

Project Name: Columbia Falls Aluminum Company Phase I RI

Well ID: WQ-CFMW1 / CFMW-001

Date: 8/4/16

Developed by: Cascade Drilling

Method of Developing: Surge and Pump + bail

Total Depth of Well (ft): 153.90 (TOC) very silty

Well Diameter (in): Just smaller than 2" (2" OD)

Depth to Water (ft): BEGIN: 97.88 (TOC)

Depth to Water (ft): END: 98.20 (TOC)

Start Time: 1225

Total Volume Removed: 35 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (153.90 ft – 97.88 ft) * (.1636 gal/ft) * (3)

V = 27.5 gal 56.02

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1300	12.75	.25	101.00	14.52	0.00	7.23	.361	-36	317	cloudy
1310	16.25	.25	101.08	14.50	0.00	7.15	.361	-61	335	cloudy
1320	18.75	.25	101.08	15.69	0.00	7.05	.359	-50	345	cloudy
1350	26.25	.25	101.08	19.77	0.00	7.42	.359	-94	256	cloudy
1425	35	.25	101.08	26.56	0.00	7.57	.366	-104	189	clear/cloudy

Remarks:

Bailed ~4 gallons of silty water.

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: W-3/TW20/CFMW-014
Date: 8/19/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 94.3 (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 76.35 (TOC)
Depth to Water (ft): END: 76.36
Start Time: 1145
Total Volume Removed: 90

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (94.3 ft – 76.35 ft) * (1.4726 gal/ft) * (3)

V = 79.29 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1200	15	1	76.35	14.41	28.99	7.19	0.704	292	185	slightly cloudy
1215	30	1	76.35	—	—	—	—	—	—	~~Slightly cloudy~~ waiting on pump SW
1230	30	1	76.35	17.23	9.88	7.15	0.762	276	76.4	mostly clear
1245	45	1	76.35	15.72	2.66	7.16	0.782	280	62.9	mostly clear
1300	60	1	76.35	16.43	0.0	7.15	0.784	281	60.2	mostly clear
1315	75	1	76.35	14.74	0.0	7.14	0.830	291	28.4	clear
1330	90	1	76.36	14.99	0.0	7.24	0.844	285	9.40	clear

Remarks: 1215 - pause in pumping due to problem with the pump. Resume pumping @ 1230
- Removed downhole equipment - 84 ft. piping, electrical and pump

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: CFMW-015/W-4 - TW21
Date: 8/19/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 94.6
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 74.46 (TOC)
Depth to Water (ft): END: 74.42
Start Time: 835
Total Volume Removed: 120

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (94.6 ft – 74.4 ft) * (1.4726 gal/ft) * (3)

V = 89.24 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
900	25	1	74.42	9.51	0.0	8.74	1.64	173	173	mostly clear
915	40	1	74.42	9.50	0.0	8.85	1.59	175	123	mostly clear
930	55	1	74.42	9.73	0.0	8.89	1.53	175	98.6	mostly clear
945	70	1	74.42	9.87	0.0	8.89	1.49	176	61.2	mostly clear
1000	85	1	74.42	10.17	0.0	8.87	1.44	178	40.6	clear
1015	100	1	74.42	10.36	0.0	8.83	1.43	180	26.9	clear
1035	120	1	74.42	11.08	0.0	8.94	1.55	170	22.6	clear

Remarks: Remove existing well equipment, 84' of pipe and the pump, and electrical

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: W5-TW15 / CFMW-019
Date: 8/18/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 97.60 TOC
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 72.25 TOC
Depth to Water (ft): END: 72.25 TOC
Start Time: 1435
Total Volume Removed: 120 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (97.60 ft – 72.25 ft) * (1.4726 gal/ft) * (3)

V = 111.9 gal 2535

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1435	0	1	72.25	–	–	–	–	–	–	Reddish
1440	5	1	72.31	10.75	2.66	7.29	0.879	290	1000	Reddish
1445	10	1	72.30	10.71	291	7.29	0.840	291	726	reddish
1455	20	1	72.30	10.87	0.000	7.32	0.838	288	362	reddish
1505	30	1	72.28	11.14	0.000	7.36	0.842	286	210	Clear
1520	45	1	72.29	11.53	0.000	7.31	0.845	290	123	"
1530	55	1	72.28	11.42	0.000	7.25	0.838	297	76.6	"
1545	70	1	72.28	11.26	0.00	7.30	0.841	298	49.1	clear
1555	80	1	72.28	11.27	0.00	7.27	0.841	300	42.3	clear
1610	95	1	72.28	11.45	0.00	7.27	0.841	299	29.1	clear
1615	100	1	72.28	11.66	0.00	7.29	0.843	299	23.8	clear
1625	110	1	72.28	11.53	0.00	7.29	0.844	299	19.7	clear
1635	120	1	72.28	11.51	0.00	7.30	0.844	299	16.4	clear

Remarks:
Removed downhole equipment - 90 ft piping, electric and pump
Surged well

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: W6-TW18/CFMW-021
Date: 8/18/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 90.1' (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 72.55 (TOC)
Depth to Water (ft): END: 72.55 (TOC)
Start Time: 1135
Total Volume Removed: 95 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (90.10 ft – 72.55 ft) * (1.4726 gal/ft) * (3)

V = 77.53 gal 17.55

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1200	25	1	~~72~~ 72.60	11.64	.11	7.22	0.609	214	209	cloudy
1215	40	1	72.60	11.82	1.76	7.22	0.605	243	123	Clear
1230	55	1	72.60	11.92	1.88	7.24	0.606	244	70.2	clear
1245	70	1	72.60	12.22	2.28	7.30	0.605	246	41	clear
1300	85	1	72.60	12.47	2.66	7.33	0.601	246	17.6	Clear
1305	90	1	72.60	12.78	2.92	7.33	0.600	246	12.7	clear
1310	95	1	72.60	12.44	2.85	7.32	0.600	248	8.36	clear

Remarks:
Remove downhole equipment - 77 ft piping, electrical and pump
Screen surged

Preliminary - Under EPA and MDEQ Review

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: W7-TW19 / CFMW-049
Date: 8/15/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 114.05' (TOC)
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 104.16' (TOC)
Depth to Water (ft): END: 104.16' (TOC)
Start Time: 0955
Total Volume Removed: 25 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (114.05 ft – 104.16 ft) * (1.4726 gal/ft) * (3)

V = 43.69 gal 9.89

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
1010	15	1	104.16	10.77	2.26	6.62	.375	216	70.3	clear/cloudy
1015	20	1	104.16	10.82	0.54	7.02	.375	245	18.1	clear
1020	25	1	104.16	10.78	1.02	7.10	.375	252	9.86	clear

Preliminary - Under EPA and MDEQ Review

Remarks:
Removed pump, piping and electrical box - 105' piping
Initial water rusty colored due to growth from pipe/pump/steel

MONITORING WELL DEVELOPMENT FORM

Project Number: 2476.0001Y002
Project Name: Columbia Falls Aluminum Company Phase I RI
Well ID: WS-TW2/CFMW-044
Date: 8/16/16
Developed by: Cascade Drilling
Method of Developing: Surge and Pump

Total Depth of Well (ft): 54.25
Well Diameter (in): 6" Steel
Depth to Water (ft): BEGIN: 46.96 (TOC)
Depth to Water (ft): END: 46.98 (TOC)
Start Time: 0747
Total Volume Removed: 20 gallons

Minimum volume to be removed: V = (Total Depth of Well – Depth to Water) * (Volume gal/ft) * (# of Casing Volumes)

V = (54.25 ft – 46.96 ft) * (1.4726 gal/ft) * (3)
7.29

V = 32.2 gal

Well Diameter (in)	0.52"	1.0"	2.0"	3.0"	4.0"	5.0"	6.0"
Volume (gal/ft)	0.0157	0.0409	0.1636	0.3682	0.6545	1.0227	1.4726

WELL PURGING INFORMATION

TIME	CUM. VOLUME REMOVED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	TEMP (°C)	D.O. (mg/L)	pH (SU)	SPEC. COND. (ms/cm)	O.R.P (mv)	Turbidity (NTU)	REMARKS (color, sediment, notes)
0752	5	1	47.21	9.28	0.00	7.10	.548	210	90.6	clear
0802	15	1	47.30	8.84	0.37	7.12	.547	217	2.40	clear
0807	20	1	47.30	9.03	0.96	7.20	.548	220	1.96	clear

Preliminary - Under EPA and MDEQ Review

Remarks:
NO downhole equipment.
Open bottom per records so no surging needed.

Well Sampling Sheet

Well ID: CFMW-001 Date: 9/20/16

DTW: 98.54 Depth of Pump Intake: ~151'

DTB: 155.20 Total Volume Purged: 23.5

Purge Start:		Time:	1045	CPM:	3	psi:	80	Discharge Rate:	10
Purge End:		Time:	1330	CPM:	3	psi:	80	Discharge Rate:	10

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1250	98.85	250	14.88	0.247	0.00	9.56	4	941	
1255	98.92		13.03	0.354	0.00	7.40	-36	802	
1300	98.90		12.64	0.360	0.00	7.02	-25	710	
1305	98.93		12.44	0.363	0.00	6.83	-18	661	
1310	98.99		12.53	0.361	0.00	6.77	-16	598	
1315	99.03		12.43	0.353	0.00	6.70	-20	575	
1320	98.99		12.26	0.348	0.00	6.66	-24	545	
1325	99.06		12.28	0.347	0.00	6.67	-31	508	23.5

Purge Water Description: slightly cloudy

Sample ID: CFMW-001-GW Sample Time: 1330

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Pump FA01196

Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-002 Date: 9-12-16

DTW: 81.41 Depth of Pump Intake: 87.65

DTB: 82.65 Total Volume Purged: 2.5

Purge Start:	0800	Time:	0800	CPM:	4	psi:	50	Discharge Rate:	150 mL/min
Purge End:	0925	Time:	0925	CPM:	4	psi:	50	Discharge Rate:	100 mL/min

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0809	81.65	150	9.31	0.888	6.74	7.32	278	827	0.2
0814	81.65	150	8.81	0.862	5.45	7.86	306	386	0.3
0819	81.65	100	8.66	0.858	4.85	7.97	313	224	0.5
0824	81.65	100	8.61	0.864	4.25	8.02	317	125	0.8
0829	81.65	100	8.61	0.869	3.72	8.04	316	70.5	1.0
0834	81.65	100	8.58	0.882	2.45	8.07	316	41.9	1.2
0839	81.65	100	8.55	0.889	2.28	8.08	317	45.5	1.4
0842	81.65	100	8.55	0.893	2.15	8.08	317	29.1	1.7
0845	81.65	100	8.52	0.898	2.06	8.09	318	22.4	1.9
0848	81.65	100	8.47	0.913	1.99	8.10	318	22.7	2.1
0851	81.65	100	8.45	0.909	1.96	8.10	319	20.5	2.3

Purge Water Description: Cloudy at beginning then clear, slight yellow color

Sample ID: CFMW-002-GW Sample Time: 0855

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba: FA0877
Pump: FA01081
Control box: FA01037

Preliminary Under EPA and NYSDOR Review

Well Sampling Sheet

Well ID: CFMW-003 Date: 9/14/16

DTW: 23.78 Depth of Pump Intake: ~50'

DTB: 54.42 Total Volume Purged: 8.25 gals

Purge Start:		Time:	0734	CPM:	3	psi:	38	Discharge Rate:	9
Purge End:		Time:	0915	CPM:	3	psi:	38	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0742	23.98	300	–	–	–	–	–	–	
0747	23.97	300	–	–	–	–	–	–	
0757	23.98	300	–	–	–	–	–	–	
0807	23.98	300	–	–	–	–	–	–	
0812	23.98	300	8.45	2.65	2.09	7.17	383	>1000	
0822	23.98	300	8.45	2.64	1.92	7.20	381	611	
0827	|	|	8.55	2.63	1.61	7.28	374	967	
0832	|	|	8.70	2.61	1.39	7.34	368	652	
0837	|	|	8.69	2.60	1.34	7.37	365	474	
0842	|	|	8.68	2.60	1.27	7.41	361	387	
0859	23.98	|	8.04	2.64	1.17	7.53	347	275	
0904	|	300	8.16	2.64	1.12	7.50	347	222	~7.5 gals
0909	|	|	8.31	2.62	1.01	7.41	349	204	
0912	23.98	300	8.37	2.62	0.97	7.36	350	184	~8.25

Purge Water Description: cloudy

Sample ID: CFMW-003-GW Sample Time: 0915

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Note - Horiba not connected until 0812 due to heavy silts in water.

Horiba FA00877 Pump FA01196

Control Box FA02121

Preliminary Under EPA and NYSDEC Review

Well Sampling Sheet

Well ID: CFMW-003a
Date: 9/20/16
DTW: 151.15
Depth of Pump Intake: 200.0
DTB: 203.21
Total Volume Purged: 2.2

Purge Start:		Time:	740	CPM:	3	psi:	105	Discharge Rate:	9
Purge End:		Time:	1020	CPM:	3	psi:	105	Discharge Rate:	7.5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
751	152.25	80	10.46	0.354	6.95	7.80	-298	1000	0.1
756	152.57	80	10.09	0.351	4.24	7.83	-392	1000	0.2
801	152.90	80	9.91	0.353	3.39	7.51	-430	1000	0.3
806	153.36	80	9.78	0.357	2.92	7.29	-458	1000	0.4
811	153.41	60	9.75	0.360	2.61	7.29	-473	1000	0.5
816	153.53	60	9.72	0.362	2.42	7.37	-481	1000	0.6
821	153.55	60	9.68	0.362	2.28	7.48	-484	1000	0.7
826	153.58	60	9.67	0.355	2.16	7.69	-488	1000	0.8
831	153.58	60	9.66	0.343	2.05	7.92	-495	1000	0.9
836	153.59	60	9.67	0.329	1.94	8.13	-494	1000	1.0
841	153.54	60	9.69	0.317	1.86	8.32	-505	1000	1.1
844	153.49	60	9.69	0.313	1.81	8.42	-505	1000	1.2
847	153.44	60	9.72	0.308	1.79	8.53	-507	1000	1.3
852	153.39	60	9.75	0.301	1.75	8.63	-510	1000	1.4
855	153.34	60	9.83	0.296	1.71	8.76	-506	1000	1.5
858	153.26	60	9.83	0.293	1.68	8.84	-509	1000	1.6

← Changed tubing

Purge Water Description: brown and cloudy ~~A beginning then clear~~ (MB)

Sample ID: CFMW-003a-GW
Sample Time: 0915
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba: FA00877
PUMP: FA01081
Control box: FA02184

Preliminary Data TR Pending QC Review

Well Sampling Sheet

Well ID: CFMW-0034 Date: 9/20/16

DTW: 151.15 Depth of Pump Intake: 200.0

DTB: 203.21 Total Volume Purged: 2.2

Purge Start:		Time:	740	CPM:	3	psi:	105	Discharge Rate:	9
Purge End:		Time:	1020	CPM:	3	psi:	105	Discharge Rate:	25

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
901	153.23	60	9.82	0.288	1.66	8.94	-508	1000	1.7
904	153.23	60	9.79	0.284	1.62	9.05	-512	1000	1.8
907	153.23	60	9.79	0.282	1.59	9.09	-511	1000	1.9
910	153.23	60	9.77	0.281	1.59	9.10	-514	1000	2.0

Purge Water Description: Cloudy, brown color

Sample ID: CFMW-0034-GW Sample Time: 0915

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Honda: FA00877

Pump: FA01081

Control box: FA02184

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID:	CFMW-007	Date:	9-21-16
DTW:	83.55	Depth of Pump Intake:	156.0
DTB:	159.70	Total Volume Purged:	2.50

Purge Start:		Time:	800	CPM:	3	psi:	120	Discharge Rate:	9
Purge End:		Time:	930	CPM:	3	psi:	110	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
820	83.55	330	9.07	0.433	18.13	5.98	472	181	0.25
825	83.55	330	8.47	0.364	5.57	7.92	389	151	0.5
830	83.55	330	8.32	0.361	4.03	8.18	370	144	0.75
835	83.55	330	8.30	0.361	3.38	8.34	355	116	1.00
840	83.55	330	8.23	0.361	3.02	8.38	347	117	1.25
845	83.55	330	8.27	0.362	2.77	8.45	340	113	1.50
850	83.55	330	8.24	0.362	2.65	8.40	339	123	1.75
855	83.55	330	8.21	0.362	2.49	8.40	335	99.2	2.00
900	83.55	330	8.24	0.362	2.43	8.45	333	107	2.25
903	83.55	330	8.24	0.362	2.33	8.46	330	99.6	2.45

Purge Water Description: clear w/ brown color.

Sample ID: CFMW-007-GW Sample Time: 0905

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

control box: FA02184

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-008 Date: 9-21-16

DTW: 88.00 Depth of Pump Intake: 186.0

DTB: 189.21 Total Volume Purged:

Purge Start:		Time:	1045	CPM:	3	psi:	100	Discharge Rate:	12
Purge End:		Time:	1155	CPM:	3	psi:	100	Discharge Rate:	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1053	88.27	150	11.17	0.620	7.96	9.39	281	128	0.1
1058	88.27	150	10.50	0.578	6.50	9.35	254	195	0.2
1103	88.27	150	10.21	0.611	3.93	9.35	238	214	0.3
1108	88.27	150	10.14	0.619	2.53	9.34	224	208	0.4
1113	88.27	150	10.08	0.624	1.92	9.33	213	190	0.5
1118	88.27	150	10.09	0.626	1.59	9.32	203	196	0.6
1123	88.27	150	10.05	0.628	1.41	9.32	195	191	0.7
1126	88.27	150	10.13	0.628	1.33	9.32	189	196	0.8
1129	88.27	150	10.12	0.629	1.27	9.32	185	198	0.9
1132	88.27	150	10.16	0.630	1.23	9.32	181	183	1.0

Purge Water Description: clear with grey/brown color

Sample ID: CFMW-008-GW Sample Time: 1135

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

Pump: FA01081

control box: FA02184

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-008a

Date: 9/14/16

DTW: 64.99

Depth of Pump Intake: ~95

DTB: 99.55

Total Volume Purged: ~6 gallons

Purge Start:		Time:	0951	CPM:	3	psi:	75	Discharge Rate:	9
Purge End:	9/15/16	Time:	1540	CPM:	3	psi:	100	Discharge Rate:	10

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1010	67.55	250	9.01	7.44	9.20	14.00	-280	18.8	~0.5
1016	70.69		8.97	7.11	8.42	14.00	-286	16.0	
1021	71.69	100	8.99	6.63	7.40	13.99	-293	3.21	
1025	71.88		9.17	6.35	6.80	13.89	-297	3.28	
1030	72.51		9.91	6.02	6.00	13.86	-307	5.08	
1035	72.89		10.04	5.99	5.89	13.92	-311	5.87	
1040	73.28	100	10.34	5.90	5.65	14.00	-320	5.65	
1045	74.82	300	10.27	5.73	5.54	14.00	-329	5.54	
1050	76.32		9.46	5.23	5.23	14.00	-347	20.7	
1100	81.10		9.47	5.16	5.06	14.00	-348	17.3	
1108	84.23		9.40	4.66	4.71	14.00	-351	24.9	
1116	86.78		9.50	4.45	4.49	14.00	-353	3.69	~4.5
1140	Top of pump		9.82	4.90	4.25	14.00	-360	46.0	~5.5
1213	91.38								

Purge Water Description:

Sample ID: CFMW-008a-GW

Sample Time: 9/15/16 @ 1540

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba - FA01191 pump
Controlbox FA02121 FA01196

1040 increased pump rate

Pumped well dry. Will allow for recharge and reassess

Sampled 9/15/16

Preliminary - Under EPA and NYSDEC Review

Page #1

Well Sampling Sheet

Well ID: CFMW-010

Date: 9-12-16

DTW: ~~86.70~~ 82.82

Depth of Pump Intake: 85.00

DTB: ~~82.82~~ 86.70

Total Volume Purged: 4

Purge Start:	0950	Time:	0950	CPM:	4	psi:	50	Discharge Rate:	160 ml/min
Purge End:	1120	Time:	1120	CPM:	4	psi:	50	Discharge Rate:	160 ml/min

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0955	82.91	160	9.48	1.37	11.66	8.48	280	max	0.2
1000	82.90	160	9.13	1.37	3.33	8.34	285	max	0.4
1005	82.88	160	9.05	1.46	2.19	8.39	282	max	0.6
1010	82.88	160	9.02	1.59	1.80	8.51	277	max	0.8
1015	82.88	160	8.98	1.74	1.61	8.65	272	max	1.0
1020	82.88	160	8.94	1.90	1.43	8.77	267	max	1.2
1025	82.88	160	9.12	1.94	1.35	8.79	266	416	1.4
1028	82.88	160	9.39	1.97	1.22	8.78	265	max	1.6
1031	82.88	160	9.49	1.98	1.19	8.78	265	915	1.8
1034	82.88	160	9.51	1.98	1.18	8.78	265	797	2.0
1037	82.88	160	9.63	1.98	1.16	8.77	264	762	2.2
1040	82.88	160	9.63	1.99	1.17	8.77	264	665	2.4
1043	82.88	160	9.64	1.99	1.18	8.77	264	606	2.6
1047	82.88	160	9.70	1.99	1.13	8.78	263	522	2.8
1050	82.88	160	9.78	2.00	1.08	8.97	254	466	3.0
1053	82.88	160	9.80	2.00	1.06	9.05	250	438	3.2

Purge Water Description: cloudy, light brown color

Sample ID: CFMW-010-GW

Sample Time: 1105

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01051

control box: FA01037

Preliminary Data Not Approved by QA/QC Department

Page #2

Well Sampling Sheet

Well ID: CFMW-010 Date: 9-12-16

DTW: 82.82 Depth of Pump Intake: 85.00

DTB: 86.70 Total Volume Purged: 4

Purge Start:	0950	Time:	0950	CPM:	4	psi:	50	Discharge Rate:	160
Purge End:	1120	Time:	1120	CPM:	4	psi:	50	Discharge Rate:	160

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1056	82.88	160	9.83	2.01	1.05	9.02	252	394	3.5
1059	82.88	160	9.85	2.01	1.04	9.01	252	401	3.6
1002	82.88	160	9.97	2.01	1.00	9.00	252	393	3.8

Purge Water Description: cloudy, light brown color

Sample ID: CFMW-010-GW Sample Time: 1105

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00577

PUMP: FA01081

control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-011 **Date:** 9/13/16

DTW: 39.54 **Depth of Pump Intake:** ~51

DTB: 52.90 **Total Volume Purged:** ~5 gals

Purge Start:		**Time:**	~~1455~~ 1518	**CPM:**	3	**psi:**	37.5	**Discharge Rate:**	9
Purge End:		**Time:**	1613	**CPM:**	3	**psi:**	37.5	**Discharge Rate:**	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Turbidity Volume Purged (gallons)
1520	39.58	250							
1525	39.58		9.75	0.383	32.30	7.65	266		>1000
1530			8.90	0.383	42.06	7.49	284		>1000
1535	39.58		8.78	0.383	39.81	7.46	286		823
1540	39.58		8.71	0.384	38.24	7.39	292	2	358
1545			8.68	0.383	40.94	7.34	295		155
1550			8.59	0.384	43.96	7.32	297	3	92.8
1555	39.58		8.60	0.383	45.66	7.30	298		35.4
1558			8.58	0.384	45.74	7.29	299		35.3
1601			8.52	0.385	40.61	7.28	299		20.9
1604			8.58	0.384	34.04	7.28	299	4	16.5
1607			8.54	0.384	42.28	7.29	299		14.5
1610			8.46	0.385	23.34	7.28	300		13.5
1613	39.58	✓	8.50	0.385	12.83	7.28	299	5	14.4

Volume

Purge Water Description: clear & no color

Sample ID: CFMW-011-GW Sample Time: 1615

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Control box FA02121

Pump FA01196

Preliminary Under Peer and QC Review

Well Sampling Sheet

Well ID: CFMW-0119 Date: 9-20-16

DTW: 101.01 Depth of Pump Intake: 168

DTB: 171.12 Total Volume Purged: 3.0

Purge Start:		Time:	1040	CPM:	3	psi:	115	Discharge Rate:	9
Purge End:		Time:	1240	CPM:	3	psi:	115	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1050	101.28	280	10.04	0.252	11.90	11.11	-634	1000	0.2
1055	101.32	280	9.17	0.240	4.41	11.23	-685	1000	0.4
1100	101.36	280	8.94	0.241	3.03	11.00	-672	1000	0.6
1105	101.38	280	8.91	0.244	2.42	10.84	-659	1000	0.8
1110	cleaned out Horiba to check turbidity sensor. turbidity sensor OK								
1114	101.34	280	9.19	0.242	2.61	10.70	-606	919	1.0
1119	101.27	280	9.13	0.260	1.93	10.34	-618	887	1.2
1124	101.40	280	9.10	0.262	1.72	10.45	-629	811	1.4
1129	101.41	280	9.05	0.261	1.57	10.40	-627	697	1.6
1134	101.38	280	9.05	0.265	1.48	10.31	-616	618	1.8
1139	101.40	280	9.00	0.266	1.42	10.24	-609	554	2.0
1144	101.36	280	8.92	0.267	1.35	10.24	-603	539	2.2
1147	101.37	280	8.95	0.270	1.33	10.17	-601	534	2.3
1150	101.35	280	8.90	0.271	1.31	10.18	-599	514	2.4

Purge Water Description: cloudy, increasing then remained slightly cloudy, brown color

Sample ID: CFMW-0119-GW Sample Time: 1155

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

control box: FA02184

Preliminary Under EPA and DOE Review

Well Sampling Sheet

Well ID: CFMW-012 Date: 9/12/16

DTW: 76.60 (TOC) Depth of Pump Intake: ~80' (TOC)

DTB: 81.84 (TOC) Total Volume Purged: 2.25 gals

Purge Start:		Time:	0800	CPM:	4	psi:	70	Discharge Rate:	5
Purge End:		Time:	0859	CPM:	4	psi:	70	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0820	77.30	200	8.82	1.05	4.75	8.86	231	.84	~.15
0825	77.43	200	8.73	1.04	11.45	8.87	232	3.02	
0830	77.64	200	8.60	1.05	5.28	8.92	230	0.45	~1 gal
0835	77.84	200	8.59	1.05	2.46	8.95	228	0.25	
0840	78.09	200	8.57	1.05	5.01	8.99	227	1.12	
0845	78.24	200	8.58	1.05	4.62	9.03	224	1.19	~2 gal
0850	78.32	200	8.58	1.05	4.31	9.04	223	1.07	

Purge Water Description: clear w/ orange tint

Sample ID: CFMW-012-GW Sample Time: 0850

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01911

Control box: FA02121

Pump FA01196

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-012a

Date: 9/15/16

DTW: 145.41

Depth of Pump Intake: ~209

DTB: 213.40

Total Volume Purged: 5

Purge Start:		Time:	0758	CPM:	3	psi:	100	Discharge Rate: 12
Purge End:		Time:	0940	CPM:	3	psi:	100	Discharge Rate: 12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0810	145.41	225	9.81	0.364	0.0	6.27	98	444	
0815			9.40	0.364	0.0	6.48	63	340	
0820		225	9.19	0.365	0.0	6.62	41	296	
0825			8.97	0.368	0.0	6.73	24	268	
0830		225	8.79	0.369	0.0	6.79	14	213	
0835			8.69	0.371	0.0	6.88	1	186	
0840	145.41		8.59	0.372	0.0	6.95	-9	152	
0845			8.47	0.374	0.0	7.00	-19	112	
0850	145.42	225	8.34	0.375	0.0	7.09	-33	92.4	
0900			8.27	0.377	0.0	7.15	-44	81.1	
0903			8.25	0.378	0.0	7.13	-49	73.3	
0906			8.23	0.378	0.0	7.13	-53	67.7	~5
0910	145.42	225	sample						

Purge Water Description: ~~slight cloudy~~ SM clear & colorless

Sample ID: CFMW-012a

Sample Time: 0910

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	X

Analysis	
AQ TCL VOCS 8260	~~X~~ no SM
AQ TCL SVOCs 8270	~~X~~ no SM
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

CFMW-DUP2-GW

@ ~~1400~~ SM 1200 hrs

Honba FA01191

Control Box FA022269

Pump FA01196

Preliminary Under EPA and QEQ Review

Well Sampling Sheet

Well ID: CFMW-014 **Date:** 9-12-16

DTW: 78.49 (TOC) **Depth of Pump Intake:** ~77

DTB: 93.43 (toc) **Total Volume Purged:** 2.25

Purge Start:		Time:	1125	CPM:	4	psi:	65	Discharge Rate:	10.0
Purge End:		Time:	1220	CPM:	4	psi:	65	Discharge Rate:	10.0

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1125	78.49	250							
1135	78.50	"	9.65	1.03	0.0	7.42	290	0.00	
1140	78.50	"	9.15	1.04	0.0	7.43	292	0.00	~1
1145	78.50	"	9.00	1.03	0.0	7.40	294	0.49	
1150		"	8.86	1.03	0.0	7.36	297	0.00	2.16
1155		"	8.90	1.04	0.0	7.32	298	0.00	
1200		"	8.99	1.04	0.0	7.33	296	0.00	2.25

Purge Water Description: clear with slight yellow tint

Sample ID: CFMW-014-GW Sample Time: 1200

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

EB1 collected prior

Horiba FA01911

Control Box FA02121

Pump FA01196

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-015 **Date:** 9-12-16

DTW: ~~76.48~~ 76.58 (TOC) **Depth of Pump Intake:** ~93

DTB: 94.56 (TOC) **Total Volume Purged:** ~1.75 gallons

Purge Start:		**Time:**	1250	**CPM:**	4	**psi:**	65	**Discharge Rate:**	5
Purge End:		**Time:**	1405	**CPM:**	4	**psi:**	65	**Discharge Rate:**	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1300	76.58	150 mL	12.59	2.32	0.0	9.39	140	4.05	
1305	76.58		11.52	2.50	0.0	9.48	113	2.86	0.25
1310	76.58		11.53	2.55	0.0	9.48	102	2.13	
1315			11.30	2.56	0.0	9.48	101	2.56	
~~1320~~			~~11.30~~	~~2.56~~	~~0.0~~	~~9.48~~	~~101~~	~~2.56~~	~~Sample~~
1320			11.24	2.56	0.0	9.48	101	6.35	
1325			11.17	2.56	0.0	9.47	102	5.92	
1330			11.24	2.56	0.0	9.47	102	6.26	1.75

Purge Water Description: clear with orange tint

Sample ID: CFMW-015-GW Sample Time: 1330

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01911
Control Box FA02121
Pump FA01196

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-016 Date: 9/14/16

DTW: 97.70 Depth of Pump Intake: —

DTB: 97.93 Total Volume Purged: —

Purge Start:		Time:		CPM:		psi:		Discharge Rate:	
Purge End:		Time:		CPM:		psi:		Discharge Rate:	

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)

Purge Water Description:

Sample ID: — Sample Time: —

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

No sample collected due to insufficient water volume.

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-016a
Date: 9-21-16
DTW: 102.44
Depth of Pump Intake: ~126
DTB: 128.36
Total Volume Purged: 5

Purge Start:		Time:	0855	CPM:	3	psi:	75	Discharge Rate:	9
Purge End:		Time:	1100	CPM:	3	psi:	75	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0905	102.53	275	9.96	2.45	0.00	12.40	-53	82.2	
0910	102.55		9.40	1.81	0.00	12.31	-75	52	
0915	102.58		9.25	1.40	0.00	12.15	-85	50.6	
0920	102.55		9.18	1.13	0.00	12.03	-88	58.9	
0925	102.55		9.12	0.950	0.00	11.90	-84	71.2	
0930	102.55		9.12	0.861	0.00	11.85	-82	59.3	
0935	102.55		9.12	0.697	0.00	11.72	-80	53.3	
0940	102.55		9.07	0.638	0.08	11.65	-76	54.6	
0945	102.55		9.06	0.606	0.07	11.63	-75	57.4	~3.25
0950			9.02	0.556	0.05	11.62	-76	50.1	
0955			9.03	0.502	0.09	11.60	-77	49.7	
1000			8.99	0.448	0.00	11.55	-75	46.3	
1005			9.02	0.381	0.00	11.42	-72	44.7	
1010			9.07	0.379	0.00	11.40	-68	40.8	
1015	102.55		9.04	0.371	0.00	11.39	-67	41.4	~5

Purge Water Description: slight cloudy + colorless

Sample ID: CFMW-016a-GW
Sample Time: 1015
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
CFMW-EB8-AQ
collected prior @
0830
Horiba FA01190 Pump FA01196
Control FA02269

Preliminary Under Legal Review

Well Sampling Sheet

Well ID: CFMW-017 Date: 9/14/16

DTW: DRY Depth of Pump Intake: —

DTB: 140.88 Total Volume Purged: —

Purge Start:		Time:		CPM:		psi:		Discharge Rate:	
Purge End:		Time:		CPM:		psi:		Discharge Rate:	

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)

Purge Water Description:

Sample ID: — Sample Time: —

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

No sample collected due to insufficient volume. Well dry

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-018 Date: 9/14/16

DTW: ~~126.70~~ DRY Depth of Pump Intake: —

DTB: 126.75 Total Volume Purged: —

Purge Start:		Time:		CPM:		psi:		Discharge Rate:
Purge End:		Time:		CPM:		psi:		Discharge Rate:

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)

Purge Water Description:

Sample ID: — Sample Time: —

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

No sample collected due to insufficient water volume. Well Dry

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-019 Date: 9-12-16

DTW: 74.42 Depth of Pump Intake: 87.00

DTB: 96.5 Total Volume Purged: 1.8

Purge Start:	1325	Time:	1325	CPM:	4	psi:	60	Discharge Rate:	150
Purge End:	1440	Time:	1440	CPM:	4	psi:	60	Discharge Rate:	150

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1340	74.44	150	10.38	0.848	10.23	8.39	251	29.8	0.2
1345	74.43	150	10.74	0.845	4.27	8.05	280	21.2	0.4
1350	74.43	150	10.50	0.844	3.86	7.83	295	17.2	0.6
1355	74.43	150	10.71	0.843	3.66	7.76	299	15.0	0.8
1400	74.43	150	10.40	0.842	3.50	7.73	301	13.3	1.0
1405	74.43	150	10.43	0.841	3.42	7.71	301	13.4	1.2
1410	74.43	150	10.53	0.840	3.42	7.69	303	11.9	1.4
1413	74.43	150	10.57	0.839	3.38	7.69	304	11.8	1.5
1416	74.43	150	10.62	0.839	3.37	7.69	306	10.9	1.6

Purge Water Description:

Sample ID: CFMW-019-GW Sample Time: 1420

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

Pump: FA01081

Control Box: FA01037

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-0199 **Date:** 9-20-16

DTW: 141.58 **Depth of Pump Intake:** 220.0

DTB: 223.20 **Total Volume Purged:** 2.2 gallons

Purge Start:		**Time:**	1315	**CPM:**	3	**psi:**	125	**Discharge Rate:**	10.5
Purge End:		**Time:**	1420	**CPM:**	3	**psi:**	115	**Discharge Rate:**	10.5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1325	141.64	90	12.98	0.574	3.20	12.39	-761	1000	0.2
1330	141.62	90	12.36	0.540	2.37	11.98	-752	1000	0.4
1335	141.60	90	12.17	0.495	2.00	11.63	-734	1000	0.6
1340	141.62	90	11.99	0.464	1.79	11.33	-709	1000	0.8
1345	141.63	90	11.86	0.434	1.64	10.99	-690	1000	1.0
1350	141.63	90	11.76	0.420	1.55	10.80	-671	1000	1.2
1355	141.63	90	11.64	0.408	1.46	10.66	-657	1000	1.4
1400	141.63	90	11.74	0.399	1.41	10.62	-655	1000	1.6
1405	141.63	90	11.79	0.389	1.34	10.43	-642	1000	1.8
1408	141.63	90	11.81	0.384	1.32	10.35	-640	1000	1.9
1411	141.63	90	11.72	0.380	1.29	10.31	-630	1000	2.0
1414	141.63	90	11.72	0.377	1.27	10.28	-625	1000	2.1
1417	141.63	90	11.79	0.374	1.23	10.24	-624	1000	2.2

Purge Water Description: slightly cloudy, light brown color

Sample ID: CFMW-0199-GW Sample Time: 1420

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

Pump: FA01081

Control Box: FA02184

Preliminary Under Editorial Review

Well Sampling Sheet

Well ID: CFMW-020 Date: 9/20/16

DTW: 104.05 ~~132.63~~ (A-) Depth of Pump Intake: ~130

DTB: 132.63 Total Volume Purged: ~ 3.5

Purge Start:		Time:	1415	CPM:	3	psi:	70	Discharge Rate:	9
Purge End:		Time:	1505	CPM:	3	psi:	70	Discharge Rate:	9 ~~3.5~~

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1420	104.11	200	14.48	0.382	5.24	7.47	0	6.07	
1425	104.09		12.57	0.391	4.99	7.48	56	1.70	
1430	104.11		11.86	0.402	4.91	7.48	75	2.72	
1435	104.11		11.71	0.405	5.00	7.46	89	2.17	
1440	104.10		11.54	0.407	4.97	7.43	97	0.84	
1445	104.10		11.56	0.406	4.86	7.41	99	0.52	
1450	104.10		11.45	0.407	4.82	7.33	108	0.25	
1455	104.10		11.48	0.408	4.74	7.27	110	0.0	
1500	104.10		11.49	0.409	4.87	7.23	114	0.0	
1505	104.10		11.50	0.408	4.79	7.22	115	0.0	3.5

Purge Water Description:

Sample ID: CFMW-020-GW Sample Time: 1510

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Pump FA01196

control FA02269

Preliminary, Under EPA and NDEQ Review

Well Sampling Sheet

Well ID: CFMW-021 Date: 9/12/16

DTW: 74.71 (toc) Depth of Pump Intake: ~86 (toc)

DTB: 89.56 (toc) Total Volume Purged: 4 gals

Purge Start:		Time:	1414	CPM:	3	psi:	70	Discharge Rate:	9
Purge End:		Time:	1545	CPM:	3	psi:	70	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1420		450							
1425	74.71	"	9.54	0.628	2.54	7.42	263	47.5	~1.25
1430	74.71	"	9.18	0.636	5.30	7.35	270	39.9	
1435	74.71	"	9.13	0.636	3.78	7.29	269	28.0	
1440		"	8.99	0.636	4.44	7.16	265	28.6	~1
1445		"	9.06	0.633	4.23	7.12	261	18.3	
1450		"	9.07	0.628	6.51	7.09	258	17.4	
1453		"	8.96	0.630	5.71	7.08	257	19.8	~2
1456		"	9.02	0.633	7.02	7.07	258	12.5	
1459		"	9.09	0.630	6.60	7.07	258	10.7	
1502		"	9.10	0.632	7.57	7.06	257	8.01	~3
1505		"	9.12	0.631	6.17	7.07	257	4.98	
1510		"	9.17	0.629	6.45	7.09	257	4.93	
1515		"	9.09	0.631	6.71	7.11	256	4.70	4
1545		end							

Purge Water Description: clear + colorless

Sample ID: CFMW-021-GW Sample Time: 1515

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01911

~~Pump FA02124~~ (AH)

Control Box FA02121

Pump FA01196

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-022 Date: 9/13/16

DTW: 73.61 (toc) Depth of Pump Intake: ~81

DTB: 83.26 (toc) Total Volume Purged: 1.75 gallons

Purge Start:		Time:	1311	CPM:	4	psi:	45	Discharge Rate:	8
Purge End:		Time:	1310	CPM:	4	psi:	45	Discharge Rate:	8

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1318		200			10.13				
1320	73.64	200	15.16	0.400	~~0.43~~	7.72	259	250	
1325	73.64	200	14.67	0.390	8.45	7.70	263	191	
1330	73.64	200	13.68	0.380	4.75	7.72	269	146	
1335	73.64	200	12.98	0.382	4.10	7.71	274	119	
1340		200	12.32	0.382	4.04	7.70	277	102	~1 gal
1345		200	12.13	0.390	4.46	7.67	280	83.5	
1350		200	11.97	0.391	4.94	7.68	281	73.0	
1353	73.69	200	11.90	0.393	3.69	7.66	283	65.2	
1356		200	11.82	0.392	3.21	7.67	283	62.6	
1400	73.64	200	11.68	0.393	4.45	7.63	285	54.4	~1.5 gal
1403		200	11.64	0.394	3.85	7.63	286	49.8	
1406	73.64	200	11.64	0.394	3.60	7.61	287	48.7	1.75

Purge Water Description: clear, no color

Sample ID: CFMW-022-GW Sample Time: 1410

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Control Box FA02121

Pump FA01196

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-023 Date: 9/21/16

DTW: 127.65 Depth of Pump Intake: ~140

DTB: 142.96 Total Volume Purged: ~4

Purge Start:		Time:	1048	CPM:	3	psi:	70	Discharge Rate:	10
Purge End:		Time:	1130	CPM:	3	psi:	70	Discharge Rate:	10

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1055	127.70	200	12.21	0.451	6.87	8.61	60	52.1	
1100	127.70		11.22	0.440	6.51	8.24	74	20.1	
1105	127.71		10.36	0.445	6.25	8.01	98	8.99	
1110	127.72		10.19	0.446	6.17	7.89	111	6.03	
1115	127.73		10.14	0.447	6.19	7.79	120	~~6.91~~ 6.21	
1120	127.75		10.88	0.447	6.15	7.71	127	7.69	
1125	127.75		10.54	0.448	6.17	7.62	135	7.83	
1130	127.75		10.38	0.449	6.29	7.59	140	8.24	~4
~~1135~~									

Purge Water Description: clear & colorless

Sample ID: CFMW-023-GW Sample Time: 1135

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba FA01191
Pump FA01196
Control FA02296

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-02S

Date: 9-13-16

DTW: 26.45

Depth of Pump Intake: —

DTB: 26.80

Total Volume Purged: —

Purge Start:		Time:		CPM:		psi:		Discharge Rate:	
Purge End:		Time:		CPM:		psi:		Discharge Rate:	

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)

Purge Water Description:

Sample ID: —

Sample Time: —

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

No sample collected due to insufficient volume

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-025a

Date: 9-13-16

DTW: 53.25

Depth of Pump Intake: 80.0

DTB: 98.42

Total Volume Purged: 2

Purge Start:	730	Time:	730	CPM:	4	psi:	60	Discharge Rate:	190
Purge End:	840	Time:	840	CPM:	4	psi:	60	Discharge Rate:	190

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
739	53.69	190	9.35	0.327	25.74	8.60	55	2.60	0.2
744	53.70	190	9.30	0.359	2.96	7.84	39	0.00	0.4
749	53.70	190	9.23	0.374	2.13	7.62	13	0.00	0.6
754	53.70	190	9.20	0.379	1.81	7.58	-8	0.00	0.8
759	53.70	190	9.19	0.383	1.58	7.55	-22	0.00	1.0
804	53.70	190	9.18	0.383	1.51	7.56	-29	0.00	1.2
809	53.70	190	9.16	0.384	1.32	7.68	-50	0.00	1.4
812	53.70	190	9.16	0.385	1.26	7.74	-58	0.00	1.5
815	53.70	190	9.11	0.385	1.19	7.92	-72	0.00	1.6
818	53.70	190	9.12	0.385	1.16	7.92	-75	0.00	1.7
824	53.70	190	9.13	0.386	1.13	7.92	-80	0.00	1.8

Purge Water Description: clear from beginning to end.

Sample ID: CFMW-025a GW

Sample Time: 0825

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Horiba: FA00877

PUMP: FA01081

control box: FA01037

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary Under EPA and RAFO Review

Well Sampling Sheet

Well ID: CFMW-025b

Date: 9-13-16

DTW: 35.28

Depth of Pump Intake: 60.0

DTB: 67.24

Total Volume Purged: 3

Purge Start:	0905	Time:	0905	CPM:	4	psi:	60	Discharge Rate:	340
Purge End:	1000	Time:	1000	CPM:	4	psi:	60	Discharge Rate:	340

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0912	36.44	340	9.17	0.433	2.76	8.05	106	44.4	0.1
0917	36.02	340	9.37	0.431	2.59	8.08	7	49.0	0.4
0922	35.58	340	9.41	0.430	1.84	8.25	-44	43.7	0.8
0927	35.52	340	9.46	0.430	1.47	8.30	-63	44.7	1.2
0932	35.49	340	9.47	0.430	1.31	8.29	-73	45.4	1.5
0937	35.48	340	9.51	0.430	1.15	8.31	-81	45.2	1.9
0942	35.46	340	9.51	0.430	1.07	8.33	-86	42.6	2.3
0945	35.46	340	9.53	0.430	1.03	8.30	-88	41.0	2.5
0948	35.46	340	9.52	0.430	0.99	8.30	-89	39.4	2.7

Purge Water Description: clear, brown color

Sample ID: CFMW-025b

Sample Time: 0950

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-026 Date: 9-13-16

DTW: 41.12 Depth of Pump Intake: ~~44.0~~ 44

DTB: 47.44 Total Volume Purged: 4.9

Purge Start:	1040	Time:	1040	CPM:	4	psi:	60	Discharge Rate:	420
Purge End:	1145	Time:	1145	CPM:	4	psi:	60	Discharge Rate:	420

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1048	41.25	420	9.41	0.477	6.87	7.90	233	485	0.3
1053	41.27	420	9.30	0.468	6.12	7.96	205	92.4	0.8
1058	41.29	420	9.28	0.468	5.62	7.99	177	28.5	1.3
1103	41.30	420	9.24	0.468	5.57	7.98	168	22.8	1.8
1108	41.30	420	9.25	0.468	5.16	7.98	154	22.8	2.3
1113	41.30	420	9.27	0.468	5.30	7.98	151	12.9	2.8
1118	41.30	420	9.26	0.467	5.30	7.98	149	1.73	3.3
1121	41.30	420	9.26	0.468	5.26	8.00	149	0.00	3.8
1124	41.30	420	9.23	0.469	5.50	8.00	149	0.00	4.0
1127	41.30	420	9.23	0.469	5.66	7.95	155	0.00	4.3
1130	41.30	420	9.26	0.468	5.54	7.94	155	0.00	4.8

Purge Water Description: slightly cloudy in beginning then clear

Sample ID: CFMW-026-GW Sample Time: 1135

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

control box: FA01037

Preliminary Under EPA and DEQ Review

Well Sampling Sheet

Well ID: CFMW-027 **Date:** 9/13/16

DTW: 33.89 **Depth of Pump Intake:** ~46'

DTB: 48.60 **Total Volume Purged:** 4.5 gallons

Purge Start:		**Time:**	1115	**CPM:**	3	**psi:**	25 ~~85~~ 60	**Discharge Rate:**	9
Purge End:		**Time:**	1232	**CPM:**	3	**psi:**	25	**Discharge Rate:**	15

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
2m		150							
1125	33.89	150	9.23	0.607	3.49	7.76	282	990	
1130	33.89	150	9.26	0.609	3.20	7.75	282	>1000	
1135	33.90	300	9.18	0.613	2.56	7.77	282	>1000	
1140	33.90	300	9.10	0.612	2.56	7.75	283	814	~1.5
1145	33.90	300	8.97	0.610	2.11	7.75	283	635	
1150	33.90	300	8.94	0.611	2.07	7.74	282	531	
1155	33.90	300	8.93	0.611	2.25	7.73	282	418	~2.25
1200	33.90	300	8.92	0.612	2.35	7.74	282	325	
1205	33.90	300	8.92	0.612	2.31	7.72	285	273	~3
1210	33.90	300	8.90	0.612	2.45	7.72	285	246	
1215	33.90	300	8.89	0.613	2.41	7.69	288	183	
1220	33.90	300	8.88	0.613	2.60	7.71	288	143	~4
1223	33.90	300	8.89	0.612	2.21	7.70	289	132	
1226	33.90	300	8.90	0.612	2.03	7.72	289	110	
1229	33.90	300	8.90	0.612	2.19	7.72	289	96.1	~4.5
1232	33.90	300	8.90	0.612	2.34	7.70	291	89.6	

Purge Water Description: slight cloudy, no color

Sample ID: CFMW-027-GW Sample Time: 1235

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES: Horiba FA01191 Pump FA01196 Control Box FA02121
DO fluctuates between ~3.40 to 2.00 mg/L based on bladder pulses. Lowest values recorded.

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-028 PAGE 1 Date: 9-13-16

DTW: 45.46 Depth of Pump Intake: ~60

DTB: 62.40 Total Volume Purged: 6 gallons

Purge Start:	0916	Time:	0916	CPM:	3	psi:	75 ~~90~~ 8m	Discharge Rate:	9
Purge End:	1034	Time:	1034	CPM:	3	psi:	75	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0920		250							
0922	46.42	250	8.29	0.515	5.79	6.98	227	514	
0925	46.56		8.27	0.499	7.67	7.12	230	752	
0930	46.65		8.25	0.470	5.98	7.34	236	772	2
0935	47.12		8.15	0.443	1.59	7.44	239	317	
0940	47.16		8.12	0.437	0.00	7.53	239	211	
0950	47.32		8.19	0.434	3.75	7.53	243	83.8	3
0955	47.43		8.27	0.431	0.00	7.57	242	51.7	
1000	47.52		8.34	0.428	0.00	7.61	240	34.9	
1005	47.52		8.48	0.425	0.00	7.75	233	20.8	4
1010	47.52		8.57	0.424	0.00	7.79	233	18.8	
1015	47.52		8.67	0.423	0.00	7.88	228	11.3	
1020	47.52		8.65	0.424	0.00	7.87	229	9.87	5 gal
1025	47.52		8.62	0.425	0.00	7.91	227	7.63	
1028	47.52		8.61	0.425	0.00	7.92	226	5.14	
1031	47.52		8.66	0.425	0.00	7.95	225	~~[illegible]~~ 5.12	

Purge Water Description:

Sample ID: CFMW-028-GW Sample Time: 1020

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Bottle time ~~0820~~ 1020 8m

but sampled ~~0835~~ 8m

1035

Horiba FA01191

Control Box FA02121 Pump FA01196

Preliminary, Under Internal MDEQ Review

Well Sampling Sheet

Well ID: CFMW-028 PAGE 2 Date: 9/13/16

DTW: 45.46 Depth of Pump Intake: ~60'

DTB: 62.40 Total Volume Purged: 6 gallons

Purge Start:		Time:	0916	CPM:	3	psi:	75	Discharge Rate:	9
Purge End:		Time:	1034	CPM:	3	psi:	75	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1034	47.52	250	8.70	0.427	0.00	7.93	225	4.76	6 gal

Purge Water Description:

Sample ID: CFMW-028-GW Sample Time: ~~0820~~ 1020

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Bottle time ~~0820~~ 1020

but sampled @ ~~0835~~ 1035

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-028a
Date: 9/20/16
DTW: 45.92
Depth of Pump Intake: ~95
DTB: 122.62
Total Volume Purged: ~2

Purge Start:		Time:	1119	CPM:	3	psi:	60	Discharge Rate:	10
Purge End:		Time:	1155	CPM:	3	psi:	60	Discharge Rate:	10

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1125	46.61	300	9.59	0.207	0.0	8.85	-321	7.42	
1130	46.68		9.44	0.204	0.0	8.84	-340	1.25	
1135	46.66		9.30	0.203	0.0	8.82	-356	0.0	
1140	46.73		9.28	0.203	0.0	8.82	-371	0.0	
1145	46.74		9.26	0.203	0.0	8.88	-381	0.0	
1150	46.78		9.30	0.203	0.0	8.98	-395	0.0	
1155	46.78		9.30	0.203	0.0	9.02	-399	0.0	~2

Purge Water Description: Clear & colorless

Sample ID: CFMW-028a-GW
Sample Time: 1155
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba FA01191
Pump FA01196
Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-029 Date: 9/13/16

DTW: 69.63 (toc) Depth of Pump Intake: ~76.00 (toc)

DTB: 78.12 (toc) Total Volume Purged:

Purge Start:		Time:	0734	CPM:	3	psi:	75	Discharge Rate:	9
Purge End:		Time:	0820	CPM:	3	psi:	75	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0740	69.63	350	9.21	0.476	23.38	7.00	253	77.6	
0745	69.63	350	8.62	0.460	16.89	7.54	266	23.2	
0750	69.63	350	8.63	0.463	10.50	7.62	262	13.3	~1.25
0755	69.63	350	8.56	0.470	13.31	7.65	256	0.0	
0800	69.63	350	8.45	0.480	10.47	7.51	264	0.0	
0805	69.63	350	8.43	0.485	11.23	7.51	265	0.0	~2.5
0810	↓	350	8.40	0.492	10.82	7.39	274	0.0	
0815		↓	8.43	0.493	11.24	7.39	273	0.0	
0820			8.34	0.496	10.88	7.38	276	0.0	~3.5 gals

Purge Water Description:

Sample ID: CFMW-029-GW Sample Time: 0820

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191
Control Box FA02121
Pump FA01196

collected CFMW-DUP1-GW @ 1000

Field DO fluctuating b/w ~10 & 30, Values are lowest of range observed

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-031 **Date:** 9.15.16

DTW: 46.79 **Depth of Pump Intake:** 51.0

DTB: 52.3 **Total Volume Purged:** 1.2

Purge Start:	0949	**Time:**	0949	**CPM:**	4	**psi:**	55	**Discharge Rate:**	5
Purge End:	1025	**Time:**	1025	**CPM:**	4	**psi:**	55	**Discharge Rate:**	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0954	46.88	360	8.42	0.485	11.26	7.99	314	41.3	0.2
0959	46.88	360	8.31	0.477	8.95	8.09	319	0.00	0.4
1004	46.79	360	8.32	0.480	8.39	8.13	322	0.00	0.6
1009	46.79	360	8.38	0.482	8.26	8.07	332	0.00	0.8
1014	46.79	360	8.40	0.482	8.22	8.12	332	0.00	1.0
~~1019~~									
~~1024~~									

Purge Water Description: Slightly cloudy in beginning then clear.

Sample ID: CFMW-031-GW Sample Time: 1015

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-032 Date: 9.15.16

DTW: 53.17 Depth of Pump Intake: 55.0

DTB: 57.7 Total Volume Purged: 3.0

Purge Start:	0742	Time:	0742	CPM:	4	psi:	55	Discharge Rate:	5
Purge End:	0850	Time:	0850	CPM:	4	psi:	55	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
747	53.39	370	8.86	1.49	30.68	7.03	425	552	0.25
752	53.43	370	8.66	1.38	6.28	7.35	396	195	0.5
757	53.49	370	8.61	1.29	5.26	7.45	385	126	0.75
802	53.50	370	8.53	1.17	4.71	7.73	366	57.1	1.0
807	53.50	370	8.52	1.11	4.61	7.74	361	38.9	1.25
812	53.50	370	8.45	1.05	4.53	7.73	359	4.53	1.5
817	53.50	370	8.44	1.02	4.54	7.75	357	13.5	1.75
822	~~50.0~~ 53.50	370	8.42	0.986	4.26	7.78	354	0.00	2.00
825	53.50	370	8.43	0.980	4.30	7.77	354	0.00	2.25
828	53.50	370	8.43	0.965	4.33	7.77	353	0.00	2.5

Purge Water Description: Slight light brown color, cloudy then clear

Sample ID: CFMW-032-GW Sample Time: 0830

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

Pump: FA01081

Control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-032a

Date: 9-16-16

DTW: 113.63' btc

Depth of Pump Intake: ~~202~~ ft 162' then 196'

DTB: 206.53

Total Volume Purged: ~4

Purge Start:		Time:	0825 ~~0826~~	CPM:	3	psi:	100	Discharge Rate:	9
Purge End:		Time:	1046	CPM:	3	psi:	100	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0930	115.55	150							
0935	116.27	|	11.74	6.36	9.08	13.08	-451	78.4	
0940	116.65	|	11.32	6.38	8.82	11.32	-500	48.6	
0945	116.75	140	11.45	6.39	7.95	11.45	-509	30.6	
0950	116.83	140	11.64	6.38	7.54	13.71	-516	23.1	
0955	116.92	|	11.73	6.34	7.07	13.92	-524	17.6	
1000	117.14	|	11.89	6.31	6.45	14.00	-530	1.51	
1005	117.19	|	11.82	6.30	5.94	14.00	-532	1.01	
1010	117.29	140	11.83	6.31	5.85	14.00	-532	0.60	
1015	117.35	|	11.74	6.33	5.58	14.00	-531	0.19	~2.5 gals
1020	117.43	|	11.79	6.32	5.24	14.00	-530	0.00	
1030	—	60	—	—	—	—	—	—	
1040	116.40	70	12.12	6.51	2.63	14.00	-523	0.00	
1043	116.40	|	12.20	6.48	2.61	14.00	-522	0.00	
1046	116.45	70	12.17	6.40	2.51	14.00	-532	0.00	~4 gals

Purge Water Description: clear & colorless

Sample ID: CFMW-032a-GW

Sample Time: 1050

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

set pump 162' initially purge 140 ml/min, 1036 reset pump to 196' @ ~70 ml

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-033 **Date:** 9.15.16

DTW: 48.09 **Depth of Pump Intake:** 61.0

DTB: 63.59 **Total Volume Purged:** 2

Purge Start:	1045	**Time:**	1045	**CPM:**	4	**psi:**	55	**Discharge Rate:**	5
Purge End:	1135	**Time:**	1135	**CPM:**	4	**psi:**	55	**Discharge Rate:**	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1051	48.41	290	9.05	0.567	12.94	7.99	334	134	0.25
1056	48.41	290	8.75	0.563	7.81	8.02	329	47.3	0.5
1101	48.41	290	8.67	0.564	7.72	8.02	330	16.0	0.75
1106	48.41	290	8.60	0.565	7.78	7.99	332	0.00	1.0
1111	48.41	290	8.62	0.565	7.66	8.06	333	0.00	1.25
1116	48.41	290	8.53	0.565	7.67	8.06	335	0.00	1.5
1121	48.41	290	8.54	0.565	7.54	8.08	336	0.00	1.75

Purge Water Description: clear from beginning to end.

Sample ID: CFMW-033-GW **Sample Time:** 1125

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

Pump: FA01081

Control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-034 Date: 9-14-16

DTW: 49.74 Depth of Pump Intake: 58.00

DTB: 62.48 Total Volume Purged: 8

Purge Start:	730	Time:	730	CPM:	4	psi:	45	Discharge Rate:	5
Purge End:	0830	Time:	0830	CPM:	4	psi:	45	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
737	49.85	260	8.86	0.549	10.83	6.43	252	965	0.3
742	49.85	260	8.73	0.516	14.36	6.66	275	655	0.6
747	49.85	260	8.66	0.510	29.79	6.76	280	356	0.8
752	49.85	260	8.57	0.509	26.24	6.88	281	26.24	1.0
757	49.85	260	8.57	0.508	26.16	6.92	281	26.16	1.3
802	49.85	260	8.54	0.509	33.85	6.96	280	45.2	1.5
807	49.85	260	8.56	0.508	28.08	7.10	273	21.0	1.9
810	49.85	260	8.52	0.508	29.15	7.17	270	29.15	2.2
813	49.85	260	8.52	0.508	34.08	7.18	269	0.00	2.4
816	49.85	260	8.54	0.508	34.94	7.20	268	0.00	2.6
819	49.85	260	8.53	0.509	34.64	7.20	267	0.00	2.8

Purge Water Description:

Sample ID: CFMW-034-GW Sample Time: 0820

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA01191

pump: FA01081

control box: FA01037

Preliminary, Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-035 Date: 9-14-16

DTW: 47.55 Depth of Pump Intake: 56.0

DTB: 70.6 Total Volume Purged: 1.2

Purge Start:	0900	Time:	0900	CPM:	4	psi:	45	Discharge Rate:	5
Purge End:	0940	Time:	0940	CPM:	4	psi:	45	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
907	49.42	270	9.19	0.694	6.94	7.11	-164	0.00	0.2
912	50.40	270	9.36	0.696	1.24	7.09	-189	0.00	0.4
917	51.38	270	9.40	0.697	1.24	7.11	-199	0.00	0.6
922	51.38	270	9.37	0.697	1.24	7.09	-202	0.00	0.8
927	51.38	270	9.34	0.700	1.24	7.10	-204	0.00	1.0

Purge Water Description:

Sample ID: CFMW-035-GW Sample Time: 0930

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Hanna: FA01191

pump: FA01081

control box FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-037 Date: 9-16-16

DTW: 80.30 Depth of Pump Intake: 98.5'

DTB: 103.27 Total Volume Purged: ~5

Purge Start:		Time:	1238	CPM:	3	psi:	60	Discharge Rate:	9
Purge End:		Time:	1408	CPM:	3	psi:	60	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1241	80.32	230							
1245	80.32		12.70	0.395	18.79	9.72	48	>1000	
1250	80.33		12.79	0.372	10.77	8.83	81	>1000	
1255	80.32		12.53	0.374	9.39	8.47	105	815	
1300	80.32		12.53	0.375	9.11	8.39	122	642	
1305			12.53	0.352	8.84	8.34	152	499	
1310	80.32		12.59	0.376	8.64	8.06	169	377	~2
1317			12.57	0.376	8.52	7.97	189	299	
1323			12.61	0.376	8.48	7.98	205	231	
1328	80.32		12.65	0.377	8.28	7.97	217	203	
1333		170	12.65	0.377	8.15	7.91	233	186	
1338			12.76	0.376	8.03	7.96	236	165	~3
1343			12.77	0.375	8.00	8.06	238	154	
1348	80.32		12.79	0.375	7.88	8.17	239	137	
1353			12.67	0.376	7.76	8.21	243	122	
1358			13.10	0.376	7.74	8.29	247	117	~4.5

Purge Water Description: slight cloudy & colorless

Sample ID: CFMW-037-GW Sample Time: 1410

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Collected CFMW-EB5-AQ prior @ 1209

Preliminary Data Not Validated/QEO Review

Well Sampling Sheet

Well ID: CFMW-037 Date: 9-16-16

DTW: 80.30' Depth of Pump Intake: 98.5'

DTB: 103.27 Total Volume Purged: ~5

Purge Start:		Time:	1238	CPM:	3	psi:	60	Discharge Rate:	9
Purge End:		Time:	1408	CPM:	3	psi:	60	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1403	80.32	170	13.40	0.374	7.59	8.24	257	106	
1408	80.32	170	13.44	0.376	7.64	8.25	261	97	~5

Purge Water Description: slight cloudy & colorless

Sample ID: CFMW-037-GW Sample Time: 1410

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:
Collected CFMW-EB5-AQ at 1209.

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-038 Date: 9/14/16

DTW: 87.46 Depth of Pump Intake: ~105'

DTB: 107.14 Total Volume Purged: ~22.6

Purge Start:		Time:	1234	CPM:	3	psi:	58	Discharge Rate:	10
Purge End:		Time:	1320	CPM:	3	psi:	58	Discharge Rate:	10

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1236	87.46	200	~~16.41~~	~~.573~~	~~7.82~~	~~9.25~~	~~91~~	~~172~~	~~8.2~~
1241	87.49	200	16.41	0.573	7.82	9.25	91	172	
1246	87.49	200	15.41	0.561	7.30	9.06	98	58.7	~0.5
1252	87.49	200	13.72	0.554	6.02	8.51	123	3.1	
1257	87.49	200	12.97	0.569	5.72	8.32	145	0.0	
1302	87.49	200	12.87	0.575	5.58	8.26	160	0.0	
1307	87.49	200	12.79	0.576	5.43	8.22	172	0.0	
1311	87.49	200	12.63	0.579	5.29	8.20	185	0.0	
1315	87.49	200	12.65	0.579	5.22	8.19	191	0.0	~2.5
1319	87.49	200	12.62	0.579	5.21	8.18	198	0.0	

Purge Water Description: clear & colorless

Sample ID: CFMW-038-GW Sample Time: 1320

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA00877

Pump FA01196

Control Box FA02121

Preliminary Under EPA and NYSDEC Review

Well Sampling Sheet

Well ID: CFMW-040 **Date:** 9/14/16

DTW: 78.32 **Depth of Pump Intake:** ~91

DTB: 92.77 **Total Volume Purged:** 25

Purge Start:		**Time:**	1400	**CPM:**	3	**psi:**	55	**Discharge Rate:**	11
Purge End:		**Time:**	1514	**CPM:**	3	**psi:**	55	**Discharge Rate:**	11

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1405	78.80	275	15.93	0.520	9.08	8.40	236	162	
1410	78.82		14.20	0.516	8.97	8.30	243	189	
1415	78.82		11.68	0.523	8.02	8.08	264	242	
1420	78.82		11.02	0.542	7.74	7.84	279	219	~1.25
1425			10.57	0.554	7.45	7.66	296	147	
1430			10.64	0.554	7.35	7.64	299	102	
1435	78.82		10.58	0.554	7.28	7.61	303	63.5	~2.5
1440			10.55	0.555	7.16	7.59	307	42.9	
1445			10.46	0.555	7.05	7.58	310	23.1	
1450			10.33	0.556	6.98	7.56	314	14.7	
1455			10.36	0.558	6.88	7.55	318	3.61	
1500			10.32	0.557	6.85	7.51	323	3.00	
1503	78.82		10.29	0.558	6.84	7.51	323	0.73	
1508			10.26	0.558	6.83	7.49	325	0.00	
1511			10.32	0.557	6.83	7.47	328	0.00	
1514	78.82		10.29	0.558	6.89	7.47	329	0.00	~5

Purge Water Description: clear & colorless

Sample ID: CFMW-040 Sample Time: 1515

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA00877

Pump FA01196

Control Box FA02121

Preliminary Data Not Validated or QC Reviewed

Well Sampling Sheet

Well ID: CFMW-042-
Date: 9-14-16
DTW: 59.89
Depth of Pump Intake: 62.0
DTB: 63.02
Total Volume Purged: 2.7

Purge Start:	1005	Time:	1005	CPM:	4	psi:	45	Discharge Rate:	5
Purge End:	1105	Time:	1105	CPM:	4	psi:	45	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1011	59.96	240	8.94	0.558	26.93	7.41	182	593	0.25
1016	59.96	240	9.10	0.551	23.08	7.32	228	636	0.5
1021	59.96	240	9.15	0.550	14.67	7.32	236	392	0.75
1026	59.96	240	9.24	0.549	20.18	7.30	243	244	1.0
1031	59.96	240	9.34	0.548	12.09	7.30	247	135	1.25
1036	59.96	240	9.46	0.546	12.10	7.33	250	62.1	1.5
1041	59.96	240	9.57	0.545	12.97	7.35	251	29.8	1.75
1046	59.96	240	9.79	0.544	11.58	7.37	252	~~20~~ 0.00	2.0
1049	59.96	240	9.84	0.544	20.04	7.39	252	0.00	2.25
1052	59.96	240	9.93	0.543	13.84	7.41	252	0.00	2.5

Purge Water Description: cloudy w/ light brown color

Sample ID: CFMW-042-GW
Sample Time: 1055
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES: ~~Equipment~~
Horiba: FA01191
Pump: FA01081
control box: FA01037

Preliminary Under EPA and NYSDEC Review

Well Sampling Sheet

Well ID: CFMW-043-E

Date: 9-13-16

DTW: 49.19

Depth of Pump Intake: ~~46.00~~ 59.00

DTB: 62.00

Total Volume Purged: 2.5

Purge Start:	1405	Time:	1405	CPM:	4	psi:	45	Discharge Rate:	240
Purge End:	1515	Time:	1515	CPM:	4	psi:	45	Discharge Rate:	240

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1411	49.24	240	12.45	0.541	10.14	8.00	259	148	0.2
1416	49.24	240	10.73	0.548	9.64	7.66	281	101	0.4
1421	49.24	240	10.20	0.553	8.80	7.48	295	73.6	0.6
1426	49.24	240	9.99	0.552	8.60	7.44	301	48.2	0.8
1431	49.24	240	9.67	0.558	8.50	7.40	309	38.3	1.0
1436	49.24	240	9.53	0.559	8.30	7.38	314	23.8	1.2
1441	49.24	240	9.49	0.560	8.26	7.37	317	14.7	1.4
1446	49.24	240	9.46	0.560	8.20	7.35	320	2.43	1.6
1449	49.24	240	9.44	0.560	8.10	7.35	321	1.96	1.8
1452	49.24	240	9.38	0.561	8.07	7.34	322	1.56	2.0
1455	49.24	240	9.37	0.561	7.96	7.33	324	0.00	2.2
1458	49.24	240	9.37	0.561	7.96	7.33	325	0.00	2.4
1501	49.24	240	9.34	0.561	7.96	7.33	325	0.00	2.6

Purge Water Description:

Sample ID: CFMW-043-GW

Sample Time: 1505

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

controlbox: FA101037

Preliminary - Under Engineer/PEO Review

Well Sampling Sheet

Well ID: CFMW-044 Date: 9-15-16

DTW: 49.30 Depth of Pump Intake: 52.0

DTB: 54.16 Total Volume Purged: 4.5

Purge Start:	1200	Time:	1200	CPM:	4	psi:	55	Discharge Rate:	5
Purge End:	1315	Time:	1315	CPM:	4	psi:	55	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1203	49.32	360	12.97	0.440	6.35	8.94	279	9.51	0.3
1208	49.34	360	12.96	0.409	1.67	8.94	146	0.00	0.6
1213	49.35	360	12.84	0.408	1.56	8.89	107	0.00	0.9
1218	49.36	360	11.41	0.419	1.22	8.87	-23	0.00	1.2
1223	49.35	360	11.30	0.420	1.18	8.89	-45	0.00	1.5
1228	49.35	360	11.14	0.419	1.04	8.86	-115	0.00	1.8
1233	49.35	360	12.34	0.414	1.57	8.37	-97	0.00	2.1
1238	49.35	360	12.43	0.423	2.63	8.14	-24	0.00	2.4
1243	49.35	360	9.89	0.456	3.96	8.12	12	0.00	2.7
1246	49.35	360	8.92	0.557	4.47	8.01	22	0.00	3.0
1249	49.35	360	8.88	0.558	4.42	8.02	34	0.00	3.3
1252	49.35	360	8.86	0.561	4.68	8.04	46	0.00	3.6
1255	49.35	360	8.89	0.563	4.87	8.09	51	0.00	3.9
1258	49.35	360	8.87	0.566	5.06	8.09	54	0.00	4.2

Purge Water Description:

Sample ID: CFMW-044-GW Sample Time: 1300

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA08877

PUMP: FA01087

Control box: FA01037

Preliminary, Under Internal Review

Well Sampling Sheet

Well ID: CFMW-044a
Date: 9/19/16
DTW: 53.73
Depth of Pump Intake: ~108.00
DTB: 112.97
Total Volume Purged: ~5

Purge Start:		Time:	0809	CPM:	3	psi:	60	Discharge Rate:	11
Purge End:		Time:	1000	CPM:	3	psi:	60	Discharge Rate:	11

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0815	54.80	100	9.50	.885	0.00	11.00	58	78.8	
0820	55.53		9.12	0.793	0.00	11.04	36	33.4	
0825	55.72	120	9.08	0.788	0.00	11.06	31 ~~38~~	38.1	
0830	56.01		9.03	0.790	0.00	11.11	19	23.2	
0835	56.32		9.01	0.807	0.00	11.16	11	19.7	
0840	56.49	125	9.01	0.826	0.00	11.20	3	15.6	
0845	56.59		8.99	0.839	0.00	11.23	-6	15.3	
0850	56.71		9.03	0.880	0.00	11.29	-25	12.8	
0855	56.83		9.02	0.915	0.00	11.32	-39	12.0	
0859	56.88		9.02	0.973	0.00	11.35	-47	10.7	
0904	56.88		9.04	1.02	0.00	11.37	-52	8.18	
0909	56.85		9.08	1.11	0.00	11.42	-66	8.57	
0914	56.88		9.13	1.27	0.00	11.61	-104	6.30	
0919	56.85	130	9.17	1.42	0.00	11.78	-128	4.71	
0924	56.85		9.19	1.51	0.00	11.78	-139	3.24	
0929	56.85		9.25	1.59	0.00	11.90	-152	2.67	

Purge Water Description:

Sample ID: CFMW-044a-GW
Sample Time: 0955
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba FA01191
Pump FA01196
Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW - 044a

Date: 9-19-16

DTW: 53.73

Depth of Pump Intake: ~108

DTB: 112.97

Total Volume Purged: ~5

Purge Start:		Time:	0809	CPM:	3	psi:	60	Discharge Rate:	11
Purge End:		Time:	1000	CPM:	3	psi:	60	Discharge Rate:	11

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0934	56.83	125	9.24	1.69	0.00	12.02	-165	2.67	
0939	|	|	9.37	1.82	0.00	12.11	-176	0.62	4.5
0944	|	|	9.44	1.94	0.00	12.18	-187	0.62	
0947	56.83	|	9.42	1.97	0.00	12.21	-191	0.00	
0950	|	|	9.43	1.99	0.00	12.24	-199	0.00	
0953	|	|	9.50	2.01	0.00	12.25	-199	0.00	~5

Purge Water Description:

Sample ID: CFMW - 044a - GW

Sample Time: 0955

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Pump FA01196

Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: ~~CFW~~ CFMW-044b

Date: 9-19-16

DTW: 65.55

Depth of Pump Intake: 2150

DTB: 241.01

Total Volume Purged: 4.25

Purge Start:		Time:	1200	CPM:	4	psi:	95	Discharge Rate:	8
Purge End:		Time:	1246	CPM:	4	psi:	95	Discharge Rate:	8

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1201	65.56	250	13.84	0.365	0.0	8.03	-184	64.2	
1206	65.80	|	11.59	0.269	0.0	8.19	-268	22.7	
1211	65.85	|	10.98	0.254	0.0	8.29	-320	8.73	
1216	65.86	|	10.77	0.253	0.0	8.24	-329	7.63	
1221	65.88	|	10.68	0.254	0.89	8.25	-336	6.57	
1226	65.88	|	10.69	0.254	1.27	8.22	-336	7.79	
1231	65.89	|	10.68	0.254	1.56	8.25	-339	7.43	
1236	65.90	225	10.67	0.254	1.74	8.24	-338	7.97	
1241	|	|	10.70	0.255	2.11	8.26	-339	7.47	
1246	|	|	10.76	0.255	2.78	8.26	-340	7.16	4.25

Purge Water Description:

Sample ID: CFMW-044b

Sample Time: 1250

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

DO reading drifting

~~+ acting suspicious~~

Horiba FA01191

Pump FA01196

Control Box FA02269

Preliminary, Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-045-~~E~~ Date: 9.15.16

DTW: 86.10 Depth of Pump Intake: 96

DTB: 100.08 Total Volume Purged: 1.5

Purge Start:	1349	Time:	1349	CPM:	4	psi:	75	Discharge Rate:	5
Purge End:	1335	Time:	1335	CPM:	4	psi:	75	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1359	86.16	140	16.15	0.562	8.45	8.20	243	865	0.1
1404	86.16	140	13.89	0.557	8.13	7.97	264	724	0.2
1409	86.16	140	13.71	0.553	7.89	7.92	272	618	0.3
1414	86.16	140	13.93	0.550	7.95	7.82	284	520	0.4
1419	86.16	140	13.98	0.551	7.83	7.78	294	279	0.5
1424	86.16	140	13.96	0.552	7.76	7.68	298	120	0.6
1429	86.16	140	14.02	0.552	7.35	7.59	308	56.2	0.7
1432	86.16	140	14.00	0.552	7.20	7.57	311	36.1	0.8
1435	86.16	140	14.06	0.551	7.13	7.55	313	26.8	0.9
1438	86.16	140	14.07	0.552	6.99	7.53	317	16.4	1.0
1441	86.16	140	14.00	0.552	6.86	7.52	318	0.00	1.1
1444	86.16	140	14.04	0.552	6.89	7.50	321	0.00	1.2
1447	86.16	140	14.04	0.552	6.74	7.49	322	0.00	1.3
~~1450~~									

Purge Water Description:

Sample ID: CFMW-045-GW Sample Time: 1450

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

PUMP: FA01081

control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-045a

Date: 9-19-16

DTW: 90.29

Depth of Pump Intake: 159.0

DTB: 161.28

Total Volume Purged: 3.2 gallons

Purge Start:		Time:	1050	CPM:	3	psi:	90	Discharge Rate:	9
Purge End:		Time:	1230	CPM:	3	psi:	85	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1054	90.79	210	11.28	0.355	4.66	10.21	55	133	0.2
1059	92.07	210	10.78	0.365	2.39	9.68	49	49.5	0.4
1104	92.90	210	10.67	0.354	1.87	9.68	45	29.8	0.6
1109	93.15	160	10.84	0.276	2.17	10.35	43	23.4	0.8
1114	93.40	160	10.87	0.286	2.25	10.26	48	25.3	1.0
1119	93.55	160	10.91	0.316	2.00	10.05	56	23.8	1.2
1124	93.72	160	10.97	0.337	1.72	9.91	61	21.3	1.4
1129	93.85	160	10.95	0.351	1.52	9.75	67	27.3	1.6
1134	93.94	160	11.01	0.371	1.34	9.66	68	27.8	1.8
1139	93.98	160	10.99	0.379	1.19	9.57	72	28.4	2.0
1144	94.06	160	11.00	0.389	1.06	9.61	69	27.9	2.2
1147	94.09	160	10.99	0.391	1.02	9.63	67	29.6	2.4
1150	94.12	160	10.99	0.393	0.97	9.67	65	27.1	2.6
1153	94.15	160	11.07	0.395	0.92	9.81	58	26.6	2.8
1156	94.15	160	11.03	0.395	0.86	9.82	58	24.8	3.0
1159	94.15	160	11.08	0.394	0.85	9.85	56	25.3	3.2

Purge Water Description: clear, no odor

Sample ID: CFMW-045a-GW

Sample Time: 1200

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	—

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba: FA00877
pump: FA01081
control box: FA02184

Preliminary Data Not Validated or Reviewed

Well Sampling Sheet

Well ID: CFMW-047 Date: 9-14-16

DTW: 100.03 Depth of Pump Intake: 115.0

DTB: 122.93 Total Volume Purged: 1.0

Purge Start:	1450	Time:	1450	CPM:	4	psi:	70	Discharge Rate:	6.5
Purge End:	1545	Time:	1545	CPM:	4	psi:	70	Discharge Rate:	6.5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1458	100.12	120	22.74	0.281	11.68	9.85	66	0.00	0.1
1503	100.12	120	18.35	0.301	6.46	10.56	27	0.00	0.2
1508	100.12	120	17.37	0.304	7.88	10.73	7	0.00	0.3
1513	100.12	120	17.46	0.304	6.40	10.79	-5	0.00	0.4
1518	100.12	120	17.37	0.305	5.72	10.84	-13	0.00	0.5
1523	100.12	120	17.23	0.307	5.44	10.85	-17	0.00	0.6
1528	100.12	120	17.01	0.308	5.57	10.86	-20	0.00	0.8

Purge Water Description:

Sample ID: CFMW-047-GW Sample Time: 1530

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA01191

pump: FA01081

control box: FA01037

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: 105.02

DTW: CFMW-049

DTB: 141.01

Date: 9/21/16

Depth of Pump Intake: ~140

Total Volume Purged: ~3

Purge Start:		Time:	0727	CPM:	3	psi:	85	Discharge Rate: 10
Purge End:		Time:	0810	CPM:	3	psi:	85	Discharge Rate: 10

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0735	105.09	250	10.81	0.417	6.72	6.43	199	4.63	
0740	105.09		10.21	0.406	6.43	6.67	223	2.37	
0747	105.09		9.96	0.400	6.52	6.88	238	0.32	
0752	105.09		9.95	0.400	6.39	6.98	242	0.00	
0757	105.09		9.83	0.399	6.11	7.07	243	0.00	
0802	105.09		9.79	0.399	6.22	7.23	238	0.00	
0807	105.09		9.76	0.399	6.06	7.31	237	0.00	
0810	105.09		9.76	0.399	5.98	7.37	236	0.00	3

Purge Water Description: Clear & colorless

Sample ID: CFMW-049-GW

Sample Time: 0810

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Pump FA01196

Control FA02269

Preliminary Under EPA and MDEQ Review

Pg 1

Well Sampling Sheet

Well ID: CFMW-049a

Date: 9/16/16

DTW: 105.28

Depth of Pump Intake: ~~N/A~~ ~149.00

DTB: 151.10

Total Volume Purged: 4 gallons

Purge Start:		Time:	1315	CPM:	3	psi:	90	Discharge Rate:	12
Purge End:		Time:	1515	CPM:	3	psi:	90	Discharge Rate:	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1325	105.43	130	18.08	5.85	5.34	12.38	-139	40.1	
1330	105.43	130	15.13	~~1.53~~ 8.49	1.53	13.06	-232	32.4	
1335	105.43	130	13.87	7.95	.74	13.07	-226	18.5	
1340	105.43	130	13.57	7.74	.79	13.06	-223	8.52	
1345	105.43	130	13.19	7.25	.87	13.02	-218	5.43	1 gallon
1350	105.43	130	12.93	6.79	.82	12.99	-213	6.24	
1355	105.43	130	12.95	6.21	.92	12.94	-209	5.09	
1400	105.43	130	12.79	5.63	1.12	12.89	-204	1.69	
1405	105.43	130	12.91	5.24	1.37	12.83	-200	2.10	2 gallons
1408	105.43	130	12.88	4.79	1.69	12.79	-196	3.03	
1411	105.43	130	12.93	4.49	1.90	12.76	-194	5.00	
1414	105.43	130	12.91	4.25	2.06	12.73	-192	6.64	
1417	105.43	130	12.88	4.03	2.22	12.69	-190	4.77	
1420	105.43	~~130~~	cleaned at Horiba.						

Purge Water Description: Clear, ~~w/ white~~ AND white filmy flakes precipitate

Sample ID: CFMW-049a-GW

Sample Time: 1445

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA01191

pump: FA01196

control box: FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-049a
Date: 9/16/16
DTW: 105.28
Depth of Pump Intake: ~149.00
DTB: 151.10
Total Volume Purged: 4 gallons

Purge Start:		Time:	1315	CPM:	3	psi:	90	Discharge Rate:	12
Purge End:		Time:	1515	CPM:	3	psi:	90	Discharge Rate:	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1427	105.43	130	13.60	3.20	5.51	12.57	-184	26.4	3gallons
1430	105.43	130	13.57	3.13	5.03	12.55	-185	22.1	
1433	105.43	130	13.53	3.01	5.01	12.53	-183	20.1	
1436	105.43	130	13.49	2.89	5.00	12.51	-181	8.98	
1439	105.43	130	13.54	2.79	5.05	12.49	-180	8.54	
1442	105.43	130	13.52	2.72	5.04	12.48	-179	8.18	
1445	105.43	130	13.57	2.63	4.95	12.46	-178	6.85	4gallons

Purge Water Description: clear w/ white filmy flakes. precipitate

Sample ID: CFMW-049a-GW
Sample Time: 1445
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba: FA0191
pump: FA0196
control box: FA02269

Preliminary Under EPA and MDEQ Review

Note: Precipitate in water appears to alter readings heavily esp. Specific Conductivity and turbidity. With no drawdown water purged from formation. Will sample at 1445

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-050-
Date: 9-19-16
DTW: 105.86
Depth of Pump Intake: 104.0
DTB: 123.37
Total Volume Purged: 1.8 gallons

Purge Start:		Time:	1318	CPM:	3	psi:	90	Discharge Rate:	9
Purge End:		Time:	1400	CPM:	3	psi:	90	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1323	105.89	335	10.84	0.403	13.79	8.51	194	38.0	0.3
1328	105.89	335	9.76	0.392	8.63	8.16	222	13.2	0.6
1333	105.89	335	9.69	0.392	7.70	8.22	229	0.00	0.9
1338	105.89	335	9.50	0.392	7.40	8.09	241	0.00	1.2
1343	105.89	335	9.50	0.391	7.17	8.06	251	0.00	1.5
1348	105.89	335	9.44	0.392	6.87	8.18	247	0.00	1.8

Purge Water Description: clear, no color

Sample ID: CFMW-050-GW
Sample Time: 1350
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba: FA00577
PUMP: FA01181
Control box: FA02184
*CFMW-EB6-AQ
associated with this sample*

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-053 Date: 9-14-16

DTW: 61.65(PVC), 61.90(steel) Depth of Pump Intake: 74.0

DTB: 76.24 Total Volume Purged: 1.2

Purge Start:	1145	Time:	1145	CPM:	4	psi:	45	Discharge Rate:	6
Purge End:		Time:		CPM:	4	psi:	45	Discharge Rate:	6

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1153	61.84	150	12.40	0.544	14.52	7.63	224	19.3	0.15
1158		150	11.53	0.540	9.26	7.57	247	0.00	0.3
1203		150	11.35	0.539	8.45	7.56	249	0.00	0.45
1208		150	11.29	0.536	7.72	7.56	255	0.00	0.60
1213		150	11.14	0.536	6.32	7.55	256	0.00	0.75
1218		150	10.06	0.536	6.92	7.55	259	0.00	0.9
									~~1.05~~
									~~1.2~~
									~~1.35~~

Purge Water Description:

Sample ID: CFMW-053-GW Sample Time: 1220

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA01191

pump: FA01081

control box: FA01037

* equipment blank

CFMW-FB3-AQ associated *

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-053a
Date: 9-19-16
DTW: 89.07
Depth of Pump Intake: 160
DTB: 162.5
Total Volume Purged: 1.6

Purge Start:		Time:	0800	CPM:	3	psi:	80	Discharge Rate:	9
Purge End:		Time:	1000	CPM:	3	psi:	70	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
814	90.20	85	10.56	8.57	2.58	14.00	-126	50.4	0.2
819	90.95	85	10.29	8.58	2.05	14.00	-161	29.8	0.4
824	91.50	85	9.99	8.66	1.76	14.00	-187	19.2	0.6
829	92.42	85	9.82	8.73	1.59	14.00	-202	13.4	0.7
834	93.00	85	9.65	8.84	1.46	14.00	-212	0.13	0.8
839	93.21	85	9.49	8.93	1.32	14.00	-223	0.00	0.9
844	93.85	85	9.38	9.04	1.25	14.00	-234	0.00	1.0
849	94.27	85	9.26	9.15	1.15	14.00	-243	0.00	1.1
854	94.45	40	9.22	9.20	1.09	14.00	-249	0.00	1.2
859	94.50	40	9.18	9.24	1.07	14.00	-255	0.00	1.3
904	94.56	40	9.16	9.30	1.01	14.00	-255	0.00	1.4

Purge Water Description: clear, no color

Sample ID: CFMW-053a-GW
Sample Time: 0910
Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
HOUSE: FA00877
PUMP: FA01081
control box: FA02184
Note purged over two days
very slow recharge while pumping
however recharge from 9/16 to 9/19 full recovery

Preliminary Under EPA and NYSDEC Review

Well Sampling Sheet

Well ID: CFMW-053a
Date: 9-16-16
DTW: 89.03' (TOC)
Depth of Pump Intake: 159'
DTB: 162.5 (TOC)
Total Volume Purged: 8 gallons

Purge Start:	1507	Time:	1507	CPM:	3	psi:	90	Discharge Rate:	9
Purge End:	1745	Time:		CPM:	3	psi:	90	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1512	88.75	180		9.96					
1516	90.90		15.74	10.1	12.39	14.00	48	672	
1521	91.05		14.07	10.6	3.39	14.00	-120	288	
1526	92.60		13.62	10.8	2.46	14.00	-181	163	
1531	93.95	300							
1536	95.02	300	12.31	10.4	2.11	14.00	-247	72.2	
1541	97.05		12.30	9.99	2.39	14.00	-222	48.2	
1549	100.19	300	11.99	9.99	2.32	14.00	-225	29.7	
1552			11.79	10.1	2.23	14.00	-236	27.1	
1558	102.75		11.83	10.2	2.17	14.00	-240	20.7	
1604	~~105.19~~ 3½		11.83	10.2	2.01	14.00	-251	~~19.2~~	19.1
1609	105.19		11.82	10.3	1.87	14.00	-251	1.45	
1614	106.32		11.70	10.4	1.74	14.00	-277	1.32	
1617	106.78		11.72	10.4	1.71	14.00	-281	0.81	
1620	107.25		11.72	10.4	1.65	14.00	-292	0.52	
~~16~~	~~107.90~~								
1745	112.89		—	—	—	—	—	—	

Purge Water Description:

Sample ID: _____ Sample Time: _____

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

End purge. Will pump again monday 9/19

Preliminary - Under EPA and NEO Review

Well Sampling Sheet

Well ID: CFMW-054 Date: 9-14-16

DTW: 74.39 Depth of Pump Intake: 85.0

DTB: 87.55 Total Volume Purged: 1.4

Purge Start:	1305	Time:	1305	CPM:	4	psi:	55	Discharge Rate:	5
Purge End:	1345	Time:	1345	CPM:	4	psi:	55	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1312	74.52	180	15.04	0.539	16.30	7.51	232	80.8	0.2
1317	74.53	180	13.60	0.534	13.53	7.49	250	17.0	0.4
1322	74.52	180	13.14	0.534	13.04	7.48	256	0.00	0.6
1327	74.52	180	12.94	0.534	13.46	7.49	258	0.00	0.8
1332	74.52	180	12.84	0.534	13.51	7.50	258	0.00	1.0
1337	74.52	180	12.91	0.534	13.02	7.51	259	0.00	1.2

Purge Water Description:

Sample ID: CFMW-054-GW Sample Time: 1340

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA01191

PUMP: FA01081

control box: FA01037

Preliminary - Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-056 Date: 9-20-16

DTW: 86.46 Depth of Pump Intake: ~178

DTB: 180.58 Total Volume Purged: 4 gallons

Purge Start:		Time:	0915	CPM:	3	psi:	90	Discharge Rate:	12
Purge End:		Time:	1020	CPM:	3	psi:	90	Discharge Rate:	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0923	86.52	250	7.97	0.342	0.00	7.32	-56	74	
0930	86.56		8.05	0.373	0.00	7.06	-143	79.1	
0935	86.62		8.08	0.378	0.00	7.07	-165	80.5	
0940	86.63		8.11	0.379	0.00	7.10	-179	76.4	
0945	86.64		8.17	0.380	0.00	7.12	-187	62.7	
0950	86.68		8.27	0.380	0.00	7.15	-194	54.1	
0955	86.72		8.30	0.380	0.00	7.16	-197	46.7	~2
1000	86.76		8.35	0.379	0.00	7.18	-203	37.9	
1005	86.77		8.35	0.379	0.00	7.18	-204	34.6	
1010	86.76		8.41	0.379	0.00	7.19	-206	30.5	
1013	86.78		8.45	0.379	0.00	7.20	-209	29.3	
1016	86.77		8.49	0.379	0.00	7.21	-211	27.0	~4

Purge Water Description: Gray tint

Sample ID: CFMW-056-GW Sample Time: 1020

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

CFMW-EB07 collected prior @ 0900

CFMW-DUP3 @ 1200

Horiba FA0191 Pump FA01196 Control FA02269

Preliminary, Under EPA and WDEQ Review

Well Sampling Sheet

Well ID: CFMW-056a

Date: 9/20/16

DTW: 79.73

Depth of Pump Intake: ~131

DTB: 137.40

Total Volume Purged: ~2 gallons

Purge Start:		Time:	0730	CPM:	2	psi:	80	Discharge Rate:	5
Purge End:		Time:	0825	CPM:	2	psi:	80	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
0738	80.49	200	9.82	0.378	0.00	7.81	-409	>1000	
0743	81.63		8.51	0.295	0.00	8.74	-453	609	
0748	82.48	150	8.48	0.283	0.00	8.78	-457	401	
0753	82.72		8.36	0.278	0.00	8.77	-450	350	
0758	82.93		8.13	0.276	0.00	8.72	-438	431	
0803	83.20		7.85	0.282	0.00	8.53	-420	507	
0808	83.42		7.64	0.287	0.00	8.41	-404	522	~1.25
0813	83.63		7.58	0.291	0.00	8.31	-395	512	
0818	83.83		7.60	0.295	0.00	8.21	-392	482	
0823	84.01		7.62	0.298	0.00	8.11	-390	452	~2

Purge Water Description: moderately turbid, light brown color

Sample ID: CFMW-056a - GW

Sample Time: 0825

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Pump FA01196

Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-0566 Date: 9-13-16

DTW: 34.31 Depth of Pump Intake: 49.00

DTB: 52.67 Total Volume Purged: 2.5

Purge Start:	1230	Time:	1230	CPM:	4	psi:	45	Discharge Rate:	300
Purge End:	1340	Time:	1340	CPM:	4	psi:	45	Discharge Rate:	300

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1238	34.40	300	9.26	0.502	9.02	7.88	253	923	0.2
1243	34.40	300	8.91	0.494	7.89	7.66	265	927	0.4
1248	34.40	300	8.80	0.493	7.88	7.64	269	874	0.6
1253	34.40	300	8.75	0.493	7.79	7.95	259	159	0.8
1258	34.40	300	8.71	0.493	7.72	7.98	261	58.3	1.0
1303	34.40	300	8.72	0.494	7.61	7.98	264	26.8	1.2
1308	34.40	300	8.72	0.494	7.42	8.02	266	12.9	1.40
1313	34.40	300	8.70	0.495	7.62	7.97	270	1.61	1.6
1314	34.40	300	8.68	0.495	7.94	7.94	272	0.41	1.8
1317	34.40	300	8.67	0.495	7.56	7.95	273	0.00	2.0
1320	34.40	300	8.69	0.495	7.58	7.96	274	0.00	2.2
1323	34.40	300	8.70	0.495	7.65	7.98	275	0.00	2.4

Purge Water Description:

Sample ID: CFMW-0566-GW Sample Time: 1325

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FAD877

PUMP: FAD081

control box: FAD037

Preliminary - Under EPA and NYSDEC Review

Well Sampling Sheet

Well ID: CFMW-057 Date: 9-19-16

DTW: 83.45 Depth of Pump Intake: ~180

DTB: 184.4 Total Volume Purged: 1.75

Purge Start:		Time:	1323	CPM:	3	psi:	85	Discharge Rate:	1
Purge End:		Time:	1405	CPM:	3	psi:	85	Discharge Rate:	1

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1335	83.51	175							
1340	83.53		15.02	0.204	3.29	8.15	-300	7.99	
1345	83.54		14.26	0.208	2.87	8.06	-309	7.94	
1350	83.58		13.84	0.209	3.56	8.00	-320	9.12	
1355	83.58		13.63	0.210	4.03	8.02	-327	9.18	~1
1400	83.58		13.52	0.211	4.39	8.02	-328	9.19	
1404	83.58		13.48	0.212	4.71	8.01	-329	9.16	1.75

Purge Water Description:

Sample ID: CFMW-057-GW Sample Time: 1405

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01191

Pump FA01196

Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-057a

Date: 9/19/16

DTW: 78.85

Depth of Pump Intake: ~138

DTB: 140

Total Volume Purged: 1 gallon

Purge Start:		Time:	1435	CPM:	3	psi:	80	Discharge Rate:	9
Purge End:		Time:	1525	CPM:	3	psi:	80	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1438	77.64	180							
1440	78.24	|							
1445	79.24	|	11.01	8.36	0.00	12.93	-344	54.3	
1446		50	–	–	–	–	–	–	–
1452	79.95	|	12.96	8.51	0.00	12.86	-332	23.5	
1457	80.34	|	12.16	8.47	|	12.84	-324	17.6	
1500	80.58	|	12.16	8.47	|	12.84	-322	15.2	
1505	80.91	|	12.24	8.47	|	12.83	-316	9.39	
1508	81.22	|	12.32	8.44	|	12.81	-316	9.08	
1511	81.42	|	12.34	8.38	|	12.81	-302	8.69	
1514	81.71	|	12.43	8.33	|	12.80	-298	6.58	
1517	81.96	|	12.34	8.31	|	12.80	-298	6.83	
1520	82.15	|	12.31	8.32	|	12.80	-289	6.85	1 gal

Purge Water Description:

Sample ID: CFMW-057a-GW

Sample Time: 1525

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba FA01196

Pump FA01196

Control FA02269

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-059 Date: ~~8-17-14~~ 9-15-16

DTW: 70.91 Depth of Pump Intake: ~80

DTB: 92.70 Total Volume Purged: 2.25

Purge Start:		Time:	1009	CPM:	3	psi:	40	Discharge Rate:	12
Purge End:		Time:	1100	CPM:	3	psi:	40	Discharge Rate:	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1015	70.96	200	9.93	0.580	24.82	7.58	117	0.0	
1020	70.95	|	9.85	0.577	22.46	7.55	98	0.0	
1025	70.92	|	9.68	0.574	16.91	7.51	71	0.0	
1033	|	|	9.62	0.574	12.76	7.49	63	0.0	
1038	|	|	9.66	0.574	18.43	7.48	71	0.0	
1043	|	|	9.69	0.572	17.24	7.48	72	0.0	
1048	70.92	200	9.67	0.563	16.90	7.48	78	0.0	2.25

Purge Water Description: clear & colorless

Sample ID: CFMW-059-GW Sample Time: 1050

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:
Horiba FA01191
Control Box FA02121
Pump FA01196

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-059a

Date: 9-19-16

DTW: 72.66

Depth of Pump Intake: 158.0

DTB: 162.98

Total Volume Purged: 3.2 gallons

Purge Start:		Time:	1440	CPM:	3	psi:	100	Discharge Rate:	9
Purge End:		Time:	1610	CPM:	3	psi:	100	Discharge Rate:	9

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1445	72.98	240	12.22	8.26	10.79	14.00	-491	593	0.1
1450	73.08	240	11.55	8.49	4.40	14.00	-535	258	0.3
1455	73.18	240	11.13	8.20	3.22	14.00	-559	142	0.5
1500	73.20	220	10.91	7.63	2.88	14.00	-575	88.5	0.7
1505	73.24	220	11.36	7.10	2.85	14.00	-586	54.4	0.9
1510	73.28	220	10.99	6.75	2.54	14.00	-586	38.4	1.1
1515	73.34	220	10.69	6.35	2.64	14.00	-588	26.8	1.3
1520	73.38	220	10.65	6.01	2.49	14.00	-592	17.5	1.5
1525	73.42	220	10.55	5.71	2.39	14.00	-592	0.00	1.7
1528	73.44	220	10.57	5.63	2.35	14.00	-592	0.00	1.9
1531	73.49	220	10.42	5.51	2.32	14.00	-590	0.00	2.1
1534	73.52	220	10.49	5.35	2.22	14.00	-591	0.00	2.3
1537	73.54	220	10.43	5.29	2.17	14.00	-592	0.00	2.5
1540	73.50	220	10.38	5.12	2.08	14.00	-593	0.00	2.7
1543	73.50	220	10.44	5.04	2.03	14.00	-595	0.00	2.9
1546	73.52	220	10.32	5.01	1.94	14.00	-595	0.00	3.1

Purge Water Description:

Sample ID: CFMW-059a-GW

Sample Time: 1550

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Horiba: FA00877

pump: FA01081

control box: FA02184

Preliminary - Data Not Validated or Reviewed

Well Sampling Sheet

Well ID: CFMW-061 Date: 9/9/16

DTW: 13.79 (toc) Depth of Pump Intake: ~23 ft btoc

DTB: 26.06 (toc) Total Volume Purged: ~6 gallons

Purge Start:		Time:	1228	CPM:	4	psi:	60	Discharge Rate:	~5
Purge End:		Time:	1338	CPM:	4	psi:	60	Discharge Rate:	5

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1232	13.79	350 ml/min	14.08	0.403	0.00	7.32	20	361	~.25
1237	13.79	350	13.78	0.405	0.00	7.34	-58	290	~.75
1242	13.79	350	13.75	0.406	0.00	7.42	-86	203	~1.10
1247	13.79	350	13.61	0.408	0.00	7.40	-94	120	~2
1252	13.79	350	13.55	0.408	0.00	7.41	-96	84.4	~2.75
1257	13.79	350	13.52	0.407	0.00	7.41	-95	49.6	~3
1302	13.79	350	13.47	0.407	0.00	7.40	-95	27.9	~3.5
1307	13.79	350	13.46	0.407	0.00	7.42	-95	13.9	~4
1312	13.79	350	13.48	0.407	0.00	7.42	-94	11.3	~4.25
1315	13.79	350	13.42	0.407	0.00	7.42	-95	7.01	~4.5
1318	13.79	350	13.44	0.407	0.00	7.40	-93	5.28	~5
1321	13.79	350	13.45	0.407	0.00	7.43	-95	3.24	~5.5
1324	13.79	350	13.45	0.407	0.00	7.42	-93	2.98	~5.75
1327	13.79	350	13.45	0.407	0.00	7.43	-94	2.91	~6

Purge Water Description: Cloudy, orange tint

Sample ID: CFMW-061-GW Sample Time: 1330

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Control box #FA02121

Bladder #FA01196

Horiba #FA01191

Preliminary Under EPA and MDEQ Review

Well Sampling Sheet

Well ID: CFMW-061 Date: 9-15-16

DTW: 13.81 Depth of Pump Intake: ~22.5'

DTB: 26.04 Total Volume Purged: 4

Purge Start:		Time:	1140	CPM:	3	psi:	25	Discharge Rate:	12
Purge End:		Time:	1300	CPM:	3	psi:	25	Discharge Rate:	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1145	13.82	300	15.67	0.390	1.14	7.51	57	171	
1150	13.82		14.71	0.393	0.0	7.55	-27	114	
1155			14.42	0.393	0.0	7.49	-31	66.1	
1200	13.82		14.22	0.396	3.96	7.48	-56	43.4	
1206			14.15	0.396	2.93	7.47	-62	27.5	
1211			14.07	0.397	3.85	7.51	-71	18.9	~2
1216	13.82		14.12	0.397	1.91	7.57	-79	11.9	
1222			13.98	0.398	0.0	7.59	-87	4.85	
1227			13.89	0.400	0.1	7.57	-86	4.02	
1232			13.84	0.400	0.2	7.55	-85	0.00	
1235			13.93	0.400	0.2	7.57	-91	0.00	
1238		300	13.91	0.400	0.2	7.60	-91	0.00	~4

Purge Water Description: clear & colorless

Sample ID: CFMW-061 Sample Time: 1245

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

CFMW-EB4-AQ collected prior

Horiba @ FA01191 Pump FA01196 Control Box FA02121

Preliminary Under EPA and NYSDEC Review

Well Sampling Sheet

Well ID: CFMW-064 **Date:** 9/15/16

DTW: ~~13.81~~ (AI) 14.36 **Depth of Pump Intake:** ~25

DTB: ~~26.04~~ (AI) 33.08 **Total Volume Purged:** 3 gallons

Purge Start:		**Time:**	1313	**CPM:**	3	**psi:**	28	**Discharge Rate:**	12
Purge End:		**Time:**	1415	**CPM:**	3	**psi:**	28	**Discharge Rate:**	12

Time	DTW (ft bls) [0.3 ft*]	PR (ml/min) [100-500 ml/min]	T (°C) [3%]	Sp. Cond. (mS/cm) [3%]	DO (mg/L) [10%]	pH (SU) [+/- 0.1 units]	ORP (mV) [+/- 10 mV]	Turb (NTU) [10%]	Volume Purged (gallons)
1319	14.35	300	11.49	0.393	1.06	7.52	181	227	
1325	14.36		11.17	0.395	0.07	7.59	195	79.6	
1330	14.36	300	10.50	0.402	0.00	7.67	217	40.7	
1335	14.36		10.35	0.404	0.00	7.64	221	30.4	1
1340	14.36	300	10.42	0.405	0.00	7.64	227	14.7	
1345			10.26	0.405	0.05	7.59	230	5.16	
1350			10.26	0.405	0.05	7.59	230	5.16	
1355	14.36		10.23	0.405	0.00	7.65	230	0.91	2
1400			10.22	0.406	0.00	7.66	232	1.09	
1405			10.20	0.405	0.00	7.65	233	0.00	
1410			10.19	0.406	0.00	7.68	235	0.00	
1415	14.36		10.21	0.406	0.00	7.66	236	0.00	3

Purge Water Description: CFMW-064-GW clear & colorless

Sample ID: CFMW-064-GW Sample Time: 1415

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

DO steady @ 0.0 until 1410
then varys widely 0-20 mg/L
Horiba - FA01191 control Box FA02121
Pump FA02121

Preliminary Under EPA and NYSDEC Review

Surface Water Sampling Sheet

Location ID: CFSWP-001 **Date:** 9/16/16

Site Feature: Flathead River

Visual Descrption: clear

	Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)	
	1110	12.86	0.168	12.62	7.71	175	0.00	

Sample ID: CFSWP-001-SW Sample Time: 1110

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-002 **Date:** 9/16/16

Site Feature: Flathead River

Visual Descrption: Clear

	Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)	
	1055	12.80	0.167	13.31	7.69	176	0.00	

Sample ID: CFSWP-002-SW Sample Time: 1055

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-003 **Date:** 9-9-16

Site Feature: Seep

Visual Descrption: clear water, biological screen on surface of water

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0900	11.72	0.208	11.59	6.18	-25	281

Sample ID: CFSWP-003-SW Sample Time: 0845

Labrotory Name: TestAmerica

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-004 **Date:** 9-9-16

Site Feature: Seep

Visual Descrption: Clear, shallow water

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0925	10.66	0.520	9.88	6.75	112	6.21

Sample ID: CFSWP-004-SW Sample Time: 0915

Labrotory Name: TestAmerica

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-005 **Date:** 9-9-16

Site Feature: Seep

Visual Descrption: Clear water, biological sheen on surface

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0950	10.00	0.517	10.00	6.75	192	0.00

Sample ID: CFSWP-005-SW Sample Time: 0940

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-006 **Date:** 9-9-16

Site Feature: Flathead River

Visual Descrption: Clear

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1045	12.36	0.165	9.12	7.53	116	0.73

Sample ID: CFSWP-006-SW Sample Time: 1030

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-007-SW **Date:** 9/16/16

Site Feature: Flathead River

Visual Descrption: Clear

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0930	12.49	0.166	13.03	7.46	202	0.00

Sample ID: CFSWP-007-SW Sample Time: 0930

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-008-SW **Date:** 9/8/16

Site Feature: Flathead River

Visual Descrption: Clear ~3' water near bank

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0900	13.40	0.161	11.28	7.50	160	0.00

Sample ID: CFSWP-008-SW Sample Time: 0900

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-008-SW **Date:** 9/16/16

Site Feature: Flathead River

Visual Descrption: Clear

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0910	12.36	0.166	11.65	7.31	197	0.00

Sample ID: CFSWP-008-SW Sample Time: 0910

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSW P-009 **Date:** 6/7/16

Site Feature: Cedar Creek Resrvoir Overflow Drainage

Visual Descrption: Clean, no odor

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1025	11.66	.326	16.06	8.00	96	0.3

Sample ID: CFSWP - 009-SW Sample Time: 1030

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-009 **Date:** 8/30/16

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: Dry creekbed

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0800	–	–	–	–	–	–

Sample ID: CFSWP-009-SW Sample Time: 0800

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

NO SAMPLE COLLECTED
CCROD dry as
of 8/30/16

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-010 **Date:** 6/7/14

Site Feature: Cedar Creek Reservoir overflow Drainage

Visual Descrption: Clear, no odor, trees upstream, near

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
955	12.58	0.296	12.09	8.06	173	18

Sample ID: CFSWP-010-SW Sample Time: 1000

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 010 - SW **Date:** 08/30/2016

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: Dry creek bed

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0815	-	-	-	-	-	-

Sample ID: CFSWP - 010 - SW Sample Time: 0815

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

NO SAMPLE COLLECTED
CCROD dry as of
8/30/2016

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-011 **Date:** 6/7/16

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: clear, no odor, no particulates

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0920	12.26	0.298	13.53	7.94	102	0.8

Sample ID: CF SWP -011 - SW Sample Time: 0925

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-011-SW **Date:** 8/30/2016

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: Dry creek bed

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0830	—	—	—	—	—	—

Sample ID: CFSWP-011-SW Sample Time: 0830

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

NO SAMPLE COLLECTED
CCR OD dry as of
8/30/2016

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 012 - SW **Date:** 6/7/16

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: Clear, no odor, no particulates

	Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)	
	0835	11.95	0.296	13.49	7.88	166	1.5	

Sample ID: CFSWP - 012 - SW Sample Time: 840

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 012 - SW **Date:** 8/30/2016

Site Feature: Cedar Creek Reservoir overflow Drainage

Visual Descrption: Dry creek bed

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0845	—	—	—	—	—	—

Sample ID: CFSWP - 012 - SW Sample Time: 0845

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

NO SAMPLE COLLECTED
CCROD dry as of
8/30/16

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSW P-013-SW **Date:** 6/7/18

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: clear, no odor, no particulates

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0745	11.82	0.295	15.18↓	7.81	149	1.2

Sample ID: CFSWP-013-SW Sample Time: 0750

Labrotory Name: TestAmerica

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

DUP 1 collected @ 800

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-013-SW **Date:** 8/30/2016

Site Feature: Cedar Creek Reservoir Overflow Drainage

Visual Descrption: Dry creek Bed

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0900	—	—	—	—	—	—

Sample ID: CFSWP-013-SW Sample Time: 0900

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

No SAMPLE COLLECTED
CCROD dry as of
8/30/2016

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 014 - SW **Date:** 8/29/16

Site Feature: Cedar Creek

Visual Descrption: Clear, very little visible sediments in water Rock and Sand substrate, Shallow water

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1400	18.83	.208	15.48	7.35	136	0.0

Sample ID: CFSWP - 014 - SW Sample Time: 1400

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 015 - SW **Date:** 8/29/16

Site Feature: Cedar Creek

Visual Descrption: Clear very little visible sediment in water Rock and sand substrate

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1325	18.45	.311	19.02	7.38	132	0.0

Sample ID: CFSWP - 015 Sample Time: 1330

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

DUP 2 @ 1335

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 016 - SW **Date:** 8/29/2016

Site Feature: Cedar Creek

Visual Descrption: Clear, very little visible sediment
Sand and rocky substrate w/logs/tree

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1235	17.71	0.310	16.83	7.44	127	0.0

Sample ID: CFSWP - 016 - SW Sample Time: 1240

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-017 **Date:** 9/16/16

Site Feature: Flathead River

Visual Descrption: Clear

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0900	10.77	0.274	11.86	7.28	176	0.00

Sample ID: CFSWP-017-SW Sample Time: 0900

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

~~Resample from Fedex error~~ (910)

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-018 **Date:** 6/6/16

Site Feature: South Percolation Pond (West)

Visual Descrption: Clear, no odor

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0825	17.09	0.355	9.03	7.29	164	2.1

Sample ID: CFSWP-018-SW Sample Time: 0830

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	X
AQ TCL Pesticides 8081	X
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-018-SW **Date:** 9/7/16

Site Feature: South Percolation Pond - SW pond

Visual Descrption: Dry - only small area with ~6" water on south west edge

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1345	–	–	–	–	–	–

Sample ID: CFSWP-018-SW Sample Time: –

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

NO SAMPLE COLLECTED
Pond dry. Sample previously collected during Pre-Round 1

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-019 **Date:** 6/6/16

Site Feature: South Percolation Pond (middle)

Visual Descrption: Clear, no odor

	Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)	
	0840	15.37	.357	8.37	7.54	161	0.9	

Sample ID: CFSWP-019-SW Sample Time: 0845

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	X
AQ TCL Pesticides 8081	X
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 019 - SW **Date:** 9/7/16

Site Feature: South Percolation Pond - Middle pond

Visual Descrption: Dry - ~6" water on Southern/middle edge

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1400	—	—	—	—	—	—

Sample ID: CFSWP-019 -SW Sample Time: —

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

NO SAMPLE COLLECTED
Pond dry. Sample
previously collected
during Pre-Round 1

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-020 **Date:** 6/6/16

Site Feature: South Percolation Pond (East)

Visual Descrption: Clear, no odor

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0855	11.08	344	11.16	7.69	157	0.3

Sample ID: CFSWP-020-SW Sample Time: 0900

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	X
AQ TCL SVOCs 8270	X
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	X
AQ TCL Pesticides 8081	X
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

NOTES:

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-020-SW **Date:** 9/7/16

Site Feature: South Perlolation Pond - SE Pond

Visual Descrption: Dry - ~6" water on Southern/middle edge

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1320	—	—	—	—	—	—

Sample ID: CFSWP-020-SW Sample Time: —

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

NO SAMPLE COLLECTED
Pond dry - Sample previously collected during Pre-Round 1

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-021 **Date:** 6/6/16

Site Feature: Northern Surface Water Area

Visual Descrption: clear, no odor

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1055	10.26	.344	12.80	7.70	163	0.1

Sample ID: CFSWP-021-SW **Sample Time:** 1100

Labrotory Name: TestAmerica

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP - 021 **Date:** 08/30/16

Site Feature: Northern Surface Water Area

Visual Descrption: Dry field

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0915	—	—	—	—	—	—

Sample ID: CFSWP - 021 - SW Sample Time: 0915

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

NO SAMPLE COLLECTED
No water present
in northern Surface
water area

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-022 **Date:** 6/6/16

Site Feature: Northern Surface Water Area

Visual Descrption: clear, no odor, some black/brown particulates from underlying grasses

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1025	11.39	.346	12.70	7.62	140	0.2

Sample ID: CFSWP-022-SW Sample Time: 1030

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	X
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	X
AQ General Chemistry 300, SM2023B, SM2340B	X
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	X

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP- 022 **Date:** 08/30/2016

Site Feature: Northern Surface Water Area

Visual Descrption: Dry field

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0930	—	—	—	—	—	—

Sample ID: CFSWP- 022- SW Sample Time: 0930

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

NOTES:

NO SAMPLE COLLECTED
No water present in
the northern surface
water area as of
8/30/2016

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-023 **Date:** 9/7/16

Site Feature: North West Percolation Pond

Visual Descrption: No water present

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
0945	-	-	-	-	-	-

Sample ID: CFSWP-023-SW Sample Time: -

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

NO SAMPLE COLLECTED
Pond dry

Preliminary - Under EPA and MDEQ Review

Surface Water Sampling Sheet

Location ID: CFSWP-024-SW **Date:** 9/7/16

Site Feature: North East Percolation Pond

Visual Descrption: No water present

Time	T (°C)	Sp. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turb (NTU)
1015	–	–	–	–	–	–

Sample ID: CFSWP-024-SW Sample Time: –

Labrotory Name: Test America

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Analysis	
AQ TCL VOCS 8260	
AQ TCL SVOCs 8270	
AQ TAL Metals EPA 200.2 / 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TAL Metals Dissolved EPA 200.7 / 200.8 / 245.2 / 6010C / 6020A / 7470A	
AQ TCL PCBs 8082	
AQ TCL Pesticides 8081	
AQ Total Cyanide 335.4	
AQ General Chemistry 300, SM2023B, SM2340B	
AQ Nutrients 300, 350.1, 353.2, 365.1, SM2540B/C	

NOTES:

NO SAMPLE COLLECTED
Pond dry

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-001-SD	**Sample Time:**	1400
Date:	9/8/16	**Sampler:**	AH
Weather:	rain, 65°F		
Latitude:	837510.9343	**Longitude:**	1541535.0852
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-001	**PID Reading:**	NA
Associated Site Feature:	Flathead River	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown fine to coarse sand, some silt.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-002-SD	**Sample Time:**	1330
Date:	9-8-16	**Sampler:**	AH
Weather:	rain, 65°F		
Latitude:	8392479938	**Longitude:**	1542221.1144
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-002	**PID Reading:**	NA
Associated Site Feature:	Flathead River	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine to coarse sand, some silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-002-SD	**Sample Time:**	1055
Date:	9/16/16	**Sampler:**	AH
Weather:	Clear 70°F		
Latitude:	GPS	**Longitude:**	GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-002	**PID Reading:**	NA
Associated Site Feature:	flathead River	**Within Site Feature (Y/N):**	YES

Grab [X] **Composite** [ ]

Visual Observations: f gravel / c sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	
Soil TAL Metals 6010	
Soil TCL PCBs 8082	
Soil TCL Pesticides 8081	
Soil Total Cyanide 9012	
Soil Fluoride 300	
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

GSA resample due to jar breakage

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-003-SD	**Sample Time:**	0845
Date:	9/9/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	841208.5142	**Longitude:**	1542588.0169
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-003	**PID Reading:**	NA
Associated Site Feature:	Seep	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown SILT, little fGS-cSand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-004-SD	**Sample Time:**	0915
Date:	9/9/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	841528.9786	**Longitude:**	1542575.7705
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-004	**PID Reading:**	NA
Associated Site Feature:	Seep	**Within Site Feature (Y/N):**	Yes
Grab	X	**Composite**	

Visual Observations: Brown SILT, ~~to~~ @ little f-c sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-005-SD	**Sample Time:**	0940
Date:	9/9/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	841749.1326	**Longitude:**	1542478.5072
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-005	**PID Reading:**	NA
Associated Site Feature:	Seep	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown SILT, little f(+)-c sand

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-006-SO	**Sample Time:**	1030
Date:	9/9/16	**Sampler:**	AH
Weather:	Clear 60°F		
Latitude:	842669.0360	**Longitude:**	1541370.8998
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-006	**PID Reading:**	NA
Associated Site Feature:	Flathead River	**Within Site Feature (Y/N):**	Yes

Grab [x] **Composite** [ ]

Visual Observations: Brown f-c (+) SAND, little silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-007-SO	**Sample Time:**	1045
Date:	9-8-16	**Sampler:**	AH
Weather:	rain, 65°F		
Latitude:	844292.2489	**Longitude:**	1541456.1652
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-007	**PID Reading:**	NA
Associated Site Feature:	Flathead River	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine to coarse sand, some silt.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-008-SD	**Sample Time:**	0900
Date:	9-8-16	**Sampler:**	AH
Weather:	rain, 65°F		
Latitude:	846341.0495	**Longitude:**	1541371.2884
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-008	**PID Reading:**	NA
Associated Site Feature:	Flathead River	**Within Site Feature (Y/N):**	Y

Grab [X] **Composite** [ ]

Visual Observations: Brown, fine to coarse sand, some silt.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-009-SO	**Sample Time:**	1010
Date:	9/6/16	**Sampler:**	AH
Weather:	Light rain, 45°F		
Latitude:	844381.9856	**Longitude:**	1545879.9116
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-009	**PID Reading:**	NM
Associated Site Feature:	Cedar Creek Reservior overflow Drainage	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, little gravel and silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSDP-010-SO **Sample Time:** 1000

Date: 9/6/16 **Sampler:** AH

Weather: Light rain 50°F

Latitude: 845469.0194 **Longitude:** 1544892.8196

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** NA

Boring ID: CFSDP-010 **PID Reading:** NM

Associated Site Feature: Cedar Creek Reservior Overflow Drainage **Within Site Feature (Y/N):** Yes

Grab [x] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, some gravel and silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	x
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	x
Total Organic Carbon	x

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-011-SO	**Sample Time:**	0950
Date:	9/6/16	**Sampler:**	AH
Weather:	Light rain 50°F		
Latitude:	847178.1177	**Longitude:**	1541832.2694
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-011	**PID Reading:**	NA
Associated Site Feature:	Cedar creek Reservior overflow Drainage	**Within Site Feature (Y/N):**	Yes
Grab	X	**Composite**	

Visual Observations: Dark brown f-c SAND, some Gravel and Silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-012-SO	**Sample Time:**	0940
Date:	9/6/16	**Sampler:**	AH
Weather:	Light rain 50°F		
Latitude:	842086.3559	**Longitude:**	1546945.8045
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-012	**PID Reading:**	NA
Associated Site Feature:	Cedar Creek Reservior Overflow Drainage	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND, Some Gravel and silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP1 @ 1200

No water present

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSDP-013-SO **Sample Time:** 0930

Date: 9/6/16 **Sampler:** AH

Weather: Light rain 50°F

Latitude: 841589.2520 **Longitude:** 1546655.0955

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** NA

Boring ID: CFSDP-013 **PID Reading:** NA

Associated Site Feature: Cedar Creek Reservior Overflow Drainage **Within Site Feature (Y/N):** Yes

Grab [x] **Composite** [ ]

Visual Observations: Dark Brown f-c SAND, some silt and gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	x
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	x
Total Organic Carbon	x

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	x
Matrix Spike Duplicate	x

Additional Notes:

No water present

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-014-SD	**Sample Time:**	1400
Date:	8/29/16	**Sampler:**	SW
Weather:	clear, 80°F		
Latitude:	1549436.4266	**Longitude:**	84,853.8420
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-014	**PID Reading:**	NA
Associated Site Feature:	Cedar Creek	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Brown silt w/ some f sand trace organics

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-015-SD	**Sample Time:**	AHA 1330
Date:	8/29/16	**Sampler:**	
Weather:	clear, 80°F		
Latitude:	1547322.4033	**Longitude:**	839838.3051
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-015	**PID Reading:**	NA
Associated Site Feature:	Cedar Creek	**Within Site Feature (Y/N):**	Yes
Grab	X	**Composite**	

Visual Observations: Brown SILT, some f. sand and organics

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-016-SD	**Sample Time:**	1200
Date:	8/29/16	**Sampler:**	SW
Weather:	clear, 80°F		
Latitude:	1544965.5855	**Longitude:**	838 511.3163
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-016	**PID Reading:**	NA
Associated Site Feature:	Cedar Creek	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f. SAND, some silt, organics, trace roots/leaves.

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-017-SO	**Sample Time:**	0840
Date:	9-8-16	**Sampler:**	AH
Weather:	rain, 65°F		
Latitude:	847567.7912	**Longitude:**	1541179.6942
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-017	**PID Reading:**	NA
Associated Site Feature:	Flathead River	**Within Site Feature (Y/N):**	Y
	Grab [X]	**Composite** [ ]	

Visual Observations: Brown fine to coarse sand, some silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSDP-018-SD **Sample Time:** 1345

Date: 9/7/16 **Sampler:** AH

Weather: Rain 60°F

Latitude: In GPS **Longitude:** In GPS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** NA

Boring ID: CFSDP-018 **PID Reading:** NA

Associated Site Feature: South Percolation Pond **Within Site Feature (Y/N):** Yes - SW pond

Grab [X] **Composite** [ ]

Visual Observations: Light brown SILT

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present at sample location

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name: CFAC **Project Number:** 2476.0001Y002

Sample ID: CFSDP-019-SD **Sample Time:** 1400

Date: 9/7/16 **Sampler:** AH

Weather: Rain 60°F

Latitude: In GPS **Longitude:** In GPS

Coordinate system: MT StatePlane **Sample Interval (ft-bls):** NA

Boring ID: CFSDP-019 **PID Reading:** NA

Associated Site Feature: South Percolation Pond **Within Site Feature (Y/N):** Yes - middle pond

Grab [X] **Composite** [ ]

Visual Observations: Light brown silt

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present at sample location

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-020-SD	**Sample Time:**	1320
Date:	9/7/16	**Sampler:**	AH
Weather:	Rain 60°F		
Latitude:	In GPS	**Longitude:**	In GPS
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-020	**PID Reading:**	NA
Associated Site Feature:	South Percolation Pond	**Within Site Feature (Y/N):**	Yes - SE pond

Grab [X] **Composite** [ ]

Visual Observations: Light brown SILT

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present at sample location

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-021-S0	**Sample Time:**	1130
Date:	9/6/16	**Sampler:**	AH
Weather:	Light rain 50°F		
Latitude:	843804.4195	**Longitude:**	1546682.2255
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-021	**PID Reading:**	NA
Associated Site Feature:	Northern SW area	**Within Site Feature (Y/N):**	Yes

Grab [x] **Composite** [ ]

Visual Observations: Light brown/tan SILT, some f-c sand and organics

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	x
Soil TAL Metals 6010	x
Soil TCL PCBs 8082	x
Soil TCL Pesticides 8081	x
Soil Total Cyanide 9012	x
Soil Fluoride 300	x
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	x
Total Organic Carbon	x

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present

Preliminary - Under EPA and MDEQ Review

CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-022-SO	**Sample Time:**	1140
Date:	9/6/16	**Sampler:**	AH
Weather:	Light rain 50°F		
Latitude:	842704.5191	**Longitude:**	1549158.4751
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-022	**PID Reading:**	NA
Associated Site Feature:	Northern SW area	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Dark brown f-c SAND some silt and organics. little gravel

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

No water present

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-024-SD	**Sample Time:**	1015
Date:	9/7/16	**Sampler:**	AH
Weather:	cloudy 60°F		
Latitude:	843147.0845	**Longitude:**	1545075.4373
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-024	**PID Reading:**	NA
Associated Site Feature:	NE Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Black SILT, some organics

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	
Matrix Spike	X
Matrix Spike Duplicate	X

Additional Notes:

No water present

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CFAC Phase I Site Characterization Soil / Sediment Sample Sheet

Site Name:	CFAC	**Project Number:**	2476.0001Y002
Sample ID:	CFSDP-023-SD	**Sample Time:**	0945
Date:	9/7/16	**Sampler:**	AH
Weather:	Cloudy 60°F		
Latitude:	841145.9079	**Longitude:**	1545400.7129
Coordinate system:	MT StatePlane	**Sample Interval (ft-bls):**	NA
Boring ID:	CFSDP-023	**PID Reading:**	NA
Associated Site Feature:	NW Percolation Pond	**Within Site Feature (Y/N):**	Yes

Grab [X] **Composite** [ ]

Visual Observations: Black SILT, some organics and shells

Laboratory Name: TestAmerica

Analysis	
Soil TCL VOCS 8260	
Soil TCL SVOCs 8270	X
Soil TAL Metals 6010	X
Soil TCL PCBs 8082	X
Soil TCL Pesticides 8081	X
Soil Total Cyanide 9012	X
Soil Fluoride 300	X
Soil PCDD/ PCDF 8290	
Grain Size Analysis/ bulk density/ moisture content	X
Total Organic Carbon	X

Quality Control (QC) sample	
Field duplicate	X
Matrix Spike	
Matrix Spike Duplicate	

Additional Notes:

DUP2 @ 1000

No water present

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APPENDIX D

Soil Boring and Monitoring Well Construction Logs

Preliminary - Under EPA and MDEQ Review

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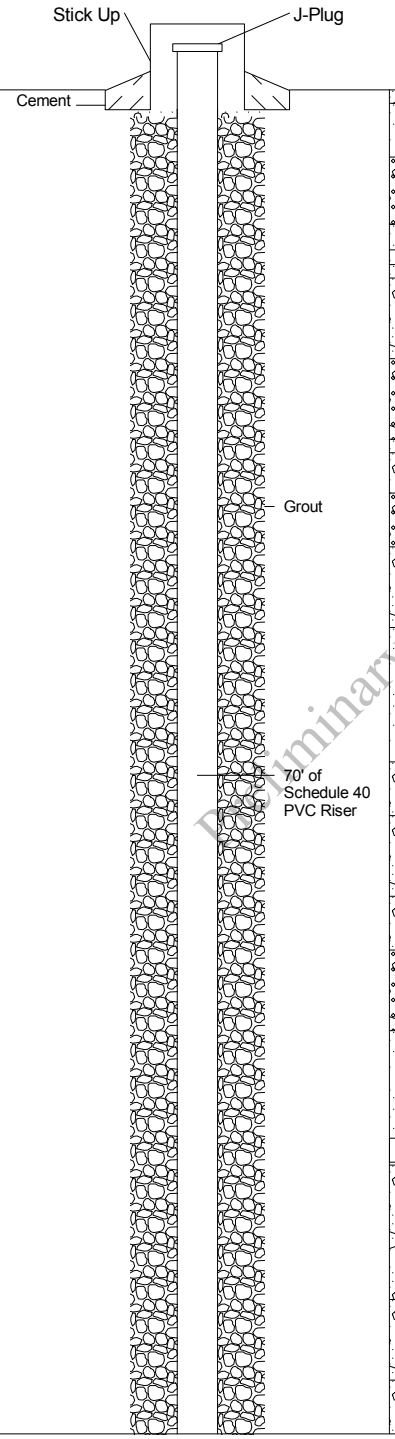
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-002	**48.399234**	**-114.141019**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Drum Storage Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/13/16-6/14/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Brown, fine to medium SAND, some Cobble, little medium Gravel and Silt; moist.	0.0	5 ft recovery
	Brown to orange, fine SAND, little Silt and fine to coarse Gravel, trace cobble; moist.	0.0	Sample CFMW-002-SO-0-0.5 collected
	Brown, fine to coarse SAND, little Cobble, Silt and fine to coarse Gravel; moist.	0.0	Sample CFMW-002-SO-0.5-2 collected
5	Brown, fine to coarse SAND, some medium to coarse Gravel, little Cobble and Silt; moist.	0.0	5 ft recovery
	Brown, fine SAND, trace gravel; moist.	0.0	Orange staining
10	Brown, fine to medium SAND, some fine to medium Gravel, little Crushed rock, trace cobble; moist.	0.1	5 ft recovery
	Brown, fine to coarse SAND, some medium to coarse Gravel, little Silt, trace cobble; moist.	0.0	Sample CFMW-002-SO-10-12 collected
	Brown, fine SAND, trace silt; moist.	0.1	
15	Gray, fine to medium SAND, some Gravel, little Crushed rock, trace boulder; moist.	0.0	5 ft recovery
	Brown, fine to coarse SAND, little coarse Gravel and Silt, trace cobble; moist.	0.0	
	Brown to gray, fine to medium SAND, some medium to coarse Gravel, little Crushed rock and Silt, trace cobble; moist.	0.0	
20	Brown, medium to coarse SAND, little Silt and Crushed rock, trace cobble and fine gravel; moist.	0.4	5 ft recovery
25	Brown, fine SAND, little Gravel and Silt; moist.	0.1	2.5 ft recovery
	Brown, fine to medium SAND, some fine to medium Gravel, trace cobble; moist to wet.	0.2	
30	Brown, fine to medium SAND, little medium Gravel, trace cobble; wet.	0.3	5 ft recovery
	Gray, fine to coarse SAND, some fine to coarse Gravel, little Silt and Crushed rock, trace cobble; dry.	0.5	
35	Bronw, fine to medium SAND, little Silt and fine to medium Gravel, trace crushed rock and cobble; dry to moist.	0.0	2 ft recovery
40	Brown, coarse GRAVEL, trace silt and sand; wet.	0.0	1.25 ft recovery
	Gray, fine SAND, some medium to coarse GRAVEL, little Cobble and Crushed rock, trace silt; dry.	0.4	
45	Brown, fine to medium SAND, some fine to coarse Gravel, little Cobble and Crushed rock, trace silt; moist.	0.4	5 ft recovery
50		0.4	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-002	**48.399234**	**-114.141019**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Gray, fine to medium SAND, little medium to coarse Gravel and Crushed rock, little Silt, trace cobble; dry. *(continued)*		0.2	5 ft recovery
		Brown, medium to coarse SAND, some fine to medium Gravel, little Cobble, trace silt; moist to wet.		0.2	
55		Gray, fine to medium SAND and medium to coarse GRAVEL, some Crushed rock; dry.		0.2	No recovery, rock in rods
		Brown, fine to medium SAND and medium to coarse GRAVEL, little Cobble, trace silt; moist to wet.			
60		No Recovery.			
		Brown, medium to coarse SAND and GRAVEL, some Cobble, little Silt, wet.		0.2	2.5 ft recovery
65	Bentonite Plug				
		Brown, fine to medium SAND, some medium to coarse Gravel and Cobble, trace silt; wet.		0.3	2.5 ft recovery
70	#2 Sand			0.1	3.75 ft recovery
		Brown, medium SAND, some fine to medium Gravel, little Cobble; wet.		0.5	
75	10' of 20-Slot Schedule 40 PVC Screen	Brown, medium to coarse GRAVEL, some fine to medium Sand, little Cobble, trace silt; wet.		0.1	5 ft recovery
80	Well Plug	Brown, fine SAND, little Cobble, trace gravel; wet.		0.0	Boring completed at 80 ft bls

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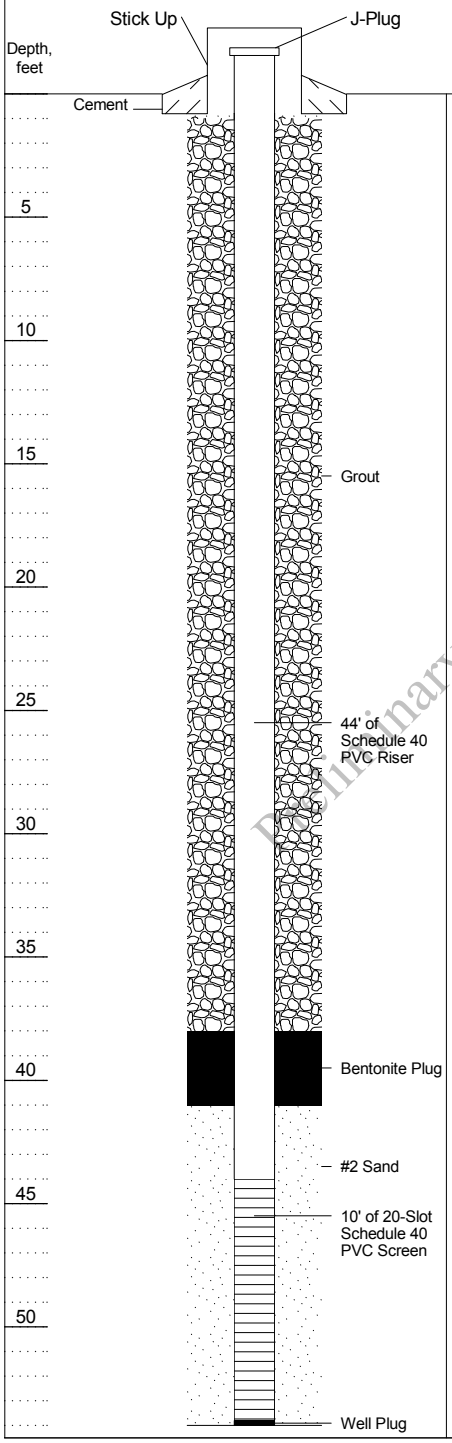
WELL CONSTRUCTION LOG

WELL NO. **CFMW-003**	LATITUDE **48.403315**	LONGITUDE **-114.142993**		
PROJECT NO./NAME **2476.0001Y002 / CFAC RI/FS Phase 1**		LOCATION **2000 Aluminum Drive Columbia Falls, Montana**		
APPROVED BY **A. Muscietta**	LOGGED BY **A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER **Cascade Drilling / Carlos Anguiano**		GEOGRAPHIC AREA **Industrial Landfill**		
DRILL BIT DIAMETER/TYPE **6-in. / Sonic Bit**	BOREHOLE DIAMETER **6-inches**	DRILLING EQUIPMENT/METHOD **Truck Mounted / Rotosonic**	SAMPLING METHOD **Continuous Core**	START-FINISH DATE **6/2/16-6/2/16**
CASING MAT./DIA. **SCH 40 PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-003a for lithology.			
5					5
10					10
15					15
20					20
25					25
30					30
35					35
40					40
45					45
50					50

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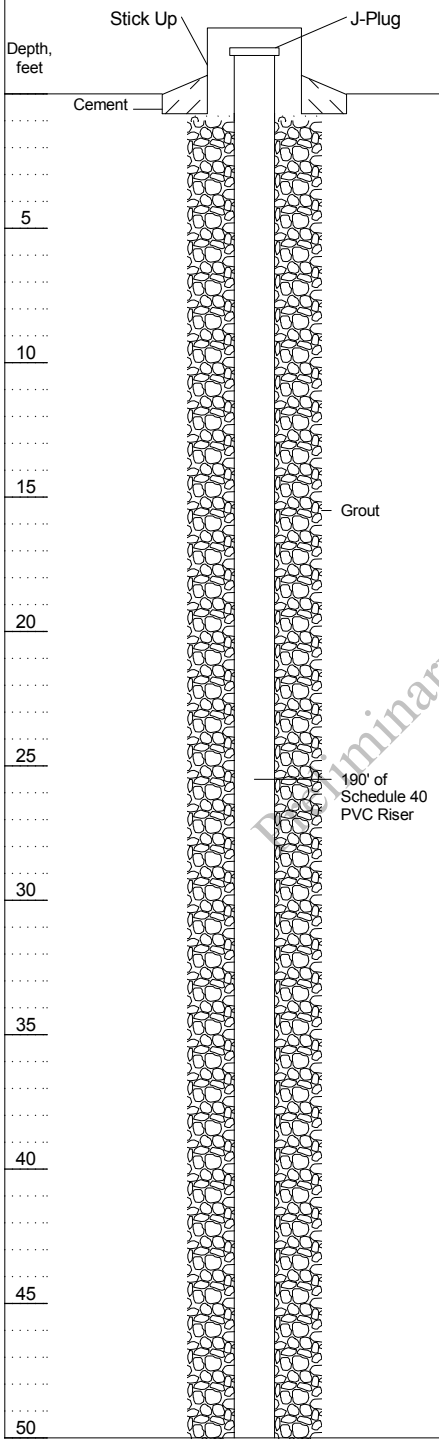
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-003a	**48.40334**	**-114.142965**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **Industrial Landfill**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**5/31/16-6/3/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Gravel, trace silt; moist.		0.0	6 ft recovery
	Brown, fine to coarse SAND, some Gravel, trace silt and cobble; moist.		0.3	Sample CFMW-003a-SO-0-0.5 collected
5				Sample CFMW-003a-SO-0.5-2 collected
	Brown, fine to coarse SAND, little Gravel, trace silt and dark brown organics; moist.			10 ft recovery
	Brown, fine to coarse SAND, some Cobble and Silt, little fine Gravel; moist (medium dense).		0.3	
10				
	Brown, fine to coarse SAND, some Gravel, trace silt; dry (medium dense).		2.3	
	Brown, fine to coarse SAND, some Gravel and Silt; moist (medium dense).		2.5	Sample CFMW-003a-SO-10-12 collected
15	Brown, fine to coarse SAND, some Silt, trace gravel; moist (medium dense).		1.6	
	Brown, fine to coarse SAND, some Silt and Gravel, little Cobble; wet (medium dense).		0.0	12 ft recovery
20				
	Brown, fine SAND and SILT, trace fine gravel; wet (loose).			
25			0.0	
	Brown, fine SAND and SILT; wet (medium dense).			Sample CFMW-003a-SO-23-28 collected
30			0.0	8 ft recovery
			0.0	
35				
			0.0	10 ft recovery
	Brown, fine SAND and SILT, some Gravel; wet (medium dense).			
40			0.0	
	Brown-gray, fine SAND and SILT, some Gravel, trace cobble; moist (medium dense).			
45			0.0	
	Brown, fine to coarse SAND, little Gravel, trace silt; wet (loose).		0.0	8 ft recovery
	Brown, fine SAND; wet (loose).		0.0	
50	Brown, fine to coarse SAND, little Gravel; wet (loose).			

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-003a	**48.40334**	**-114.142965**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, little Gravel; wet (loose). *(continued)*		0.0	
		Brown-gray, fine to coarse SAND, some Gravel, trace silt; moist (medium dense).		0.0	
55		Brown-gray, fine to coarse SAND, some Gravel and Silt; moist (dense).		0.0	11 ft recovery 55
		Brown-gray, fine to coarse SAND, some Gravel and Silt; dry (very dense).		0.0	
60		Brown-orange, fine to coarse SAND and SILT, some fine Gravel, trace clay; dry (very dense).		0.0	60
65					65
	Grout	Brown-orange, SILT and low plasticity CLAY, trace fine sand; dry (very stiff).		0.0	9 ft recovery
70		Red-brown, SILT and low plasticity CLAY, trace fine sand; (very stiff).		0.0	70 7" Conductor casing set to 70 ft bls
75	190' of Schedule 40 PVC Riser	Brown-orange-gray, SILT and low plasticity CLAY, trace fine sand; dry (very stiff).		0.0	7 ft recovery 75
80					80
		Brown-orange, SILT and low plasticity CLAY, trace fine sand; dry (very stiff). Brown, SILT and low plasticity CLAY, trace fine sand; moist (very stiff).		0.1	15 ft recovery
85		Brown-orange, SILT and low plasticity CLAY; moist (very stiff).		0.0	85
		Brown-orange, SILT and low plasticity CLAY, little fine Gravel, trace fine to coarse sand; moist (stiff).		0.3 0.4	
90		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace clay and medium to coarse gravel; moist to wet (dense).		0.0	90
95					95
		Brown-orange, fine to coarse SAND, some fine Gravel and Silt, trace medium to coarse gravel and clay; wet (medium dense).			10 ft recovery
100				0.8	100
105		Brown-orange, fine to coarse SAND, some fine Gravel and Silt, little medium to coarse Gravel and clay; wet (medium dense).		0.5	105
					10 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-003a	**48.40334**	**-114.142965**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown-orange-tan, SILT and low plasticity CLAY, little fine Sand; moist (very stiff). *(continued)*		0.2	
110		Brown-orange, fine to coarse SAND, some fine Gravel and Silt, trace medium to coarse gravel and clay; wet (dense).			
115				0.0	
		Red-brown, SILT and low plasticity CLAY, trace fine sand; moist to dry (very stiff).			10 ft recovery
				0.0	
120		Tan-red-brown, SILT and low plasticity CLAY, some fine Gravel; dry (very stiff).		0.0	
		Brown-orange, fine to coarse SAND, some Silt and fine Gravel; wet (dense).			
125				0.0	
	190' of Schedule 40 PVC Riser	Brown-orange, fine to coarse SAND, some Silt and fine Gravel, little Clay; wet (dense).			10 ft recovery
				0.1	
130		Tan-brown-orange, SILT and low plasticity CLAY, trace fine sand; wet (stiff).			
		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, little low plasticity Clay, trace medium to coarse gravel; wet (dense).		0.0	
135		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace low plastcitiy clay; wet (medium dense).		0.0	
		Red-brown, SILT and low plasticity CLAY, trace fine sand; wet (dense).		0.1	10 ft recovery
				0.0	
140		Red-brown, fine SAND and SILT, little Clay; wet (loose).		0.0	
		Red-brown-tan, SILT and low plasticity CLAY, trace fine sand; wet (stiff).			
		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace clay and medium to coarse gravel; wet (medium dense).		0.0	
145	Grout				
		Brown-orange, fine to coarse SAND, some Silt and fine Gravel; wet (medium dense).			10 ft recovery
				0.1	
150		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace clay; wet (medium dense).		0.1	
		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace medium to coarse gravel; wet (medium dense).		0.1	
155		Brown-orange to tan-red-brown, SILT and low plasticity CLAY, trace fine sand; moist (very stiff).		0.0	
		Brown-orange, fine to coarse SAND, some Silt and fine Gravel; wet (medium dense).			10 ft recovery
160		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace clay; wet (dense).		0.3	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-003a	**48.40334**	**-114.142965**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		Brown-orange, fine to coarse SAND, some Silt and fine Gravel, trace clay; wet (dense). *(continued)*			165
					10 ft recovery
170				0.0	170
175	Grout				175
		Red-brown, fine to coarse SAND, some Silt and Gravel; wet (dense).			10 ft recovery
180				0.0	180
185	Bentonite Plug				185
		Brown, fine to coarse SAND, some Silt and Gravel; wet (medium dense).			10 ft recovery
				0.1	
190	#2 Sand	Brown, fine to coarse SAND, some Silt and Gravel; wet (dense).			190
195	10' of 20-Slot Schedule 40 PVC Screen			0.0	195
		Brown, fine to coarse SAND, some Silt and Gravel, trace clay; wet (dense).			10 ft recovery
200	Well Plug			0.0	200
205	Bentonite				205
		Brown, fine to coarse SAND, some Silt and Gravel, trace clay; wet (medium dense).			10 ft recovery
210		Brown, fine to coarse SAND, some Silt and Gravel, trace clay; wet (dense).		0.2	210
				0.0	
215	Grout				215
		Brown, fine to coarse SAND, some Silt, little Gravel, trace clay; wet (dense).			8.5 ft recovery
220				0.2	220

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-003a	**48.40334**	**-114.142965**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Silt, little Gravel, trace clay; wet (dense). *(continued)*			
225	Brown, SILT and low plasticity CLAY, little fine Sand; wet (very stiff).		0.0	12 ft recovery
	Brown, fine to coarse SAND, some Silt and Gravel; wet (medium dense).			
230			0.0	
	Grout			
	Brown, fine to coarse SAND, some Silt and Gravel; wet (dense).		0.0	
235	Brown, fine to coarse SAND, some Silt and Gravel; wet (medium dense).		0.0	
	Brown, fine to coarse SAND, some Silt and Gravel, trace clay; moist (very dense).		0.0	4 ft recovery
	Tan, SILT and low plasticity CLAY, some fine Gravel (angular), trace fine sand; dry (very dense).		0.0	
240			0.0	
	Brown, fine to coarse SAND, some Silt and Gravel, trace clay; moist (very dense).			5.5 ft recovery
	BOULDER (pulverized); dry.		0.0	
	Brown, fine to coarse SAND, some Silt and Gravel, little Cobble (crushed), trace clay; dry (dense).		0.0	
245	BOULDER (pulverized); dry.			End of boring at 245.5 ft bls
	Brown, SILT and low plasticity CLAY, little Gravel, trace fine sand; dry (very dense).			

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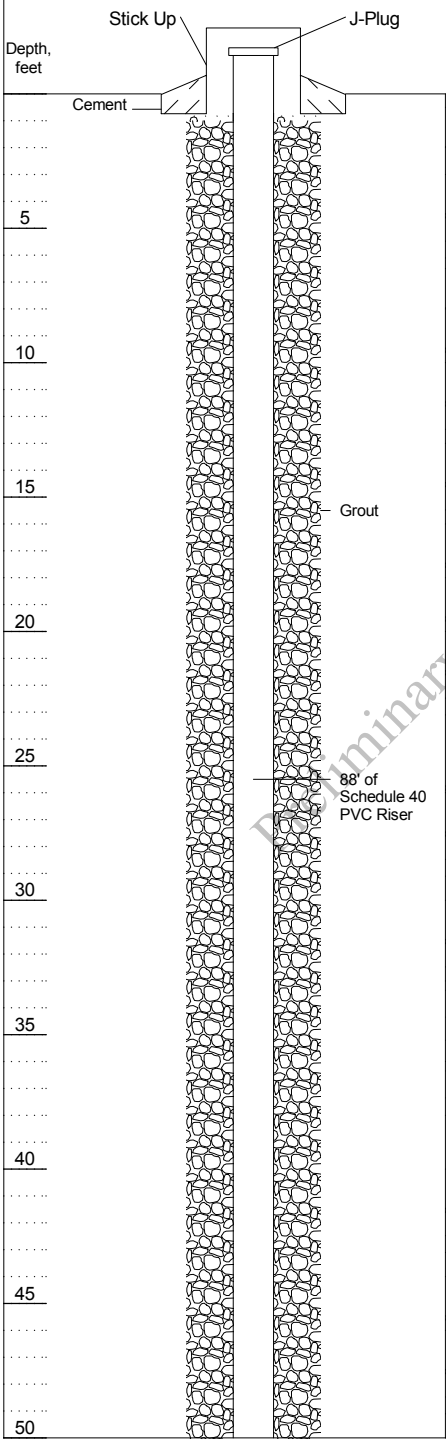
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-008a	**48.400915**	**-114.132865**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **Sanitary Landfill**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**6/13/16-6/17/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, little fine to coarse Gravel; dry.	0.1	6.5 ft recovery
	Dark brown, fine to coarse SAND, some medium Gravel, little Cobble (concrete) and fine to coarse Gravel; dry.	1.3	Sample CFMW-008a-SO-0-0.5 and CFMW-008a-SO-0-0.5-Pb collected
5	Brown, fine to coarse SAND, some fine to medium Gravel, trace silt; dry.	0.3	Sample CFMW-008a-SO-0.5-2 collected
	Brown, fine to coarse SAND, some medium to coarse Gravel, little Silt; moist.	0.1	9.5 ft recovery
	Brown, fine to coarse SAND, some Gravel and Cobble, little Silt, trace boulder; wet.		
10	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble; dry.	0.5	
	Brown, fine to coarse Sand, some fine to coarse Gravel, trace cobble; moist.	0.1	
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble, trace silt; wet.	0.1	Sample CFMW-008a-SO-10-12 collected
15			
	Brown, fine to coarse SAND, some fine to medium Gravel, trace silt; dry.	0.2	10 ft recovery
20	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace cobble; wet.	0.3	
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble and Silt; moist (dense).	0.0	
25			
	Brown, fine to coarse SAND and Gravel, trace cobble and silt; moist (loose).	1.6	10 ft recovery
30			
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble and silt; moist.	1.1	
	Brown, fine to medium SAND; moist.	0.3	
35			
	Brown, fine to medium SAND; moist (dense).	0.0	2 ft recovery
	Boulder, broken cobble; dry.	0.0	8 ft recovery; hard drilling
40			
	Brown, fine to coarse SAND, some Gravel (angular) and broken Cobble; dry.	0.0	
		0.1	
45	Brown, fine to coarse SAND, some Gravel (angular) and broken Cobble, little Silt; dry (dense).	0.0	
	Brown, fine to coarse SAND, some Gravel (angular) and Cobble and Boulder; dry.	0.0	4 ft recovery; hard drilling
50			

Preliminary Under EPA & NDEQ Review

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Environmental Consulting & Management

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-008a	**48.400915**	**-114.132865**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Cobble, Boulder and fine Gravel (angular), trace silt; dry.		0.0	3 ft recovery; hard drilling
55	Brown, fine to coarse SAND, some Cobble, Boulder and Gravel (angular), trace silt; dry.		0.1	6 ft recovery; hard drilling
60	Brown, fine to coarse SAND, some Gravel, little Silt, trace cobble; moist.		0.0	
65	Brown, fine to coarse SAND, some Gravel, broken Cobble and Boulder, trace silt; dry.		0.0	5 ft recovery; hard drilling
70	Gray, fine to coarse SAND, some Gravel, little broken Cobble and Boulder, trace silt; dry.		0.0 0.0	7 ft recovery; hard drilling
75	Brown, fine to coarse SAND, some Gravel, little Silt, trace cobble; moist (dense).		0.0	5 ft recovery; hard drilling
80	Brown, fine to coarse SAND, some fine Gravel and Silt, little medium to coarse Gravel; moist (medium dense).		0.0	10 ft recovery
85	Brown, fine to coarse SAND, some fine Gravel and Silt, little medium to coarse Gravel; wet (medium dense).		0.0	
90	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace cobble; wet (medium dense).		0.0	10 ft recovery
95	Red-brown, fine to coarse SAND, some Silt and fine Gravel, trace clay; moist (stiff).		0.0	Sample CFMW-008a-SO-88-93 collected
100			0.0	8 ft recovery
105	Red-brown to orange-brown, fine to coarse SAND, some Silt, little Gravel and Clay; moist to dry (stiff).		0.0	8 ft recovery

Grout
88' of Schedule 40 PVC Riser
Bentonite Plug
#2 Sand
10' of 20-Slot Schedule 40 PVC Screen
Well Plug
Bentonite

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-008a	**48.400915**	**-114.132865**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Bentonite		0.0	
110	Red-brown, to orange-brown, fine to coarse SAND, some Silt, little fine Gravel and Clay; dry (stiff).		0.0	
115	Tan, low plasticity SILTY CLAY, little fine Sand and Fine Gravel; dry (stiff).		0.0	7" Conductor casing set to 114 ft 11 ft recovery; hard drilling
120	Tan, fine SAND, some Silt, trace fine gravel and medium to coarse sand; moist (medium stiff). Tan, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff).		0.0	
125	Tan to orange-brown, low plasticity SILTY CLAY, some fine Sand, trace fine gravel and medium to coarse sand; dry (very stiff).		0.0	9 ft recovery; hard drilling
	Tan, fine to coarse SAND, some Silt and fine Gravel; moist (very dense).		0.0	
130	Gray, fine SAND and SILT, some low plasticity Clay and fine Gravel; dry (very stiff).		0.0	
	Purple to gray, low plasticity SILTY CLAY, trace fine sand ; dry (very stiff, weathered bedrock).		0.0	
135	Light gray to white, low plasticity SILTY CLAY, trace fine sand; dry (very stiff, weathered bedrock). Purple, low plasticity SILTY CLAY; dry (very stiff, weathered bedrock).		0.0	10 ft recovery; hard drilling
140	Light gray with purple, low plasticity SILTY CLAY, trace fine sand; dry (very stiff, weathered bedrock).		0.0	
145	Purple to tan, low plasticity SILTY CLAY, little fine Gravel; moist (very stiff, weathered bedrock). Light gray to purple, low plasticity SILTY CLAY, trace fine sand; dry (very stiff, weathered bedrock).		0.0	4 ft recovery; hard drilling
	Grout			
150	No Recovery.			No recovery
155	Light gray to purple, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff, weathered bedrock).		0.0	3 ft recovery; hard drilling
160	Purple, low plasticity SILTY CLAY, some fine to coarse Sand, trace fine gravel; dry (very stiff, weathered bedrock).		0.0	7 ft recovery; hard drilling
	Purple, fine to coarse SAND, some Silt and Clay, little fine to medium Gravel; moist		0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-008a	**48.400915**	**-114.132865**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		(dense, weathered bedrock).		0.0	
		Purple and light gray, fine to coarse SAND, some Silt and Clay and fine to coarse Gravel; moist (very stiff, weathered bedrock). *(continued)*		0.0	7 ft recovery; hard drilling
		Light gray, fine to coarse SAND, some fine to coarse Gravel and Cobble, little Silt and Clay; moist (loose, weathered bedrock).		0.0	
170		Purple, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff, weathered bedrock).		0.0	
		Light gray to purple, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff, weathered bedrock).			6 ft recovery; hard drilling
175	Grout	Light gray, low plasticity SILTY CLAY, little fine Sand and fine Gravel, trace medium gravel; dry (very stiff, weathered bedrock).		0.0	
180		Purple, low plasticity SILTY CLAY, some fine Sand; dry (very stiff, weathered bedrock).		0.0	4 ft recovery
		Gray, fine to coarse SAND, some Silt, little Clay, trace gravel; moist (medium dense, weathered bedrock).		0.0	
185		Greenish-gray, (angular) GRAVEL, some Broken boulder; moist (loose, weathered bedrock).		0.0	6 ft recovery; hard drilling
		Light gray to white, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff, weathered bedrock).		0.0	
190		Greenish-light gray, medium GRAVEL, some Silt and fine Sand, trace slay; moist (dense, weathered bedrock).		0.0	
		Light gray, low plasticity SILTY CLAY, some fine Sand, little fine Gravel; moist (stiff, weathered bedrock).		0.0	4 ft recovery; hard drilling
195		Purple, SILT, little Clay and fine Sand, trace gravel; moist (stiff, weathered bedrock).		0.0	
		COBBLE and coarse GRAVEL; moist (weathered bedrock).			
200		Purple, fine to coarse SAND, some Gravel, little Silt and low plasticity Clay; moist (dense, weathered bedrock).		0.0	
		Purple, fine to coarse SAND, some Silt and fine Gravel, little Clay; moist to dry (dense, weathered bedrock).		0.0	
205		Purple to gray, fine to coarse SAND, some Silt, little fine Gravel and Clay; moist (dense, weathered bedrock).		0.0	7 ft recovery; hard drilling
210		Light gray, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff, weathered bedrock).		0.0	
		Purple to gray, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay; moist (dense, weathered bedrock).		0.0	
215		Purple to whiteish green, fine to coarse GRAVEL and COBBLE, trace coarse sand; moist (loose, weathered bedrock).		0.0	
		No Recovery.			
220		Gray, low plasticity SILTY CLAY, trace fine sand and fine gravel; dry (very stiff, weathered bedrock).			5 ft recovery; hard drilling

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-008a	**48.400915**	**-114.132865**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225	Grout	Gray, low plasticity SILTY CLAY, some fine Sand, trace fine gravel; dry to moist (stiff, weathered bedrock).			5 ft recovery; hard drilling
		Purple and gray, low plasticity SILTY CLAY, trace fine sand and fine gravel; moist (stiff, weathered bedrock).			
230		Purple, fine to coarse SAND, some Silt and Clay, little fine Gravel; moist (dense, weathered bedrock).			4 ft recovery; hard drilling
		Purple, GRAVEL, some fine to coarse SAND, little Silt and Clay; moist (dense, weathered bedrock).			
235		Gray, fine to coarse SAND, some Silt and Clay, trace fine gravel; moist (dense, weathered bedrock).			4 ft recovery; hard drilling
		COBBLE and fine to coarse GRAVEL; moist.			
240					
245		Green, broken COBBLE, BOULDER or BEDROCK; moist.			5 ft recovery; hard drilling with water
250				0.0	
255					
260		Green, broken COBBLE, BOULDER or BEDROCK, some Silt and Clay; moist.		0.0	3 ft recovery; hard drilling with water
265					
		Gray, broken COBBLE, BOULDER or BEDROCK.		0.0	3 ft recovery; hard drilling with water
270		Purple, broken COBBLE, BOULDER or BEDROCK.		0.0	
275					
		Purple, broken COBBLE, BOULDER or BEDROCK, some Silt and Clay.			5 ft recovery; hard drilling with water

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-008a	**48.400915**	**-114.132865**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280			Purple, broken COBBLE, BOULDER or BEDROCK, some Silt and Clay. *(continued)*			280
285	Grout					285
			Purple, broken COBBLE, BOULDER or BEDROCK.			5 ft recovery; hard drilling with water
290						290
295						295
300						End of boring at 300 ft bls 300

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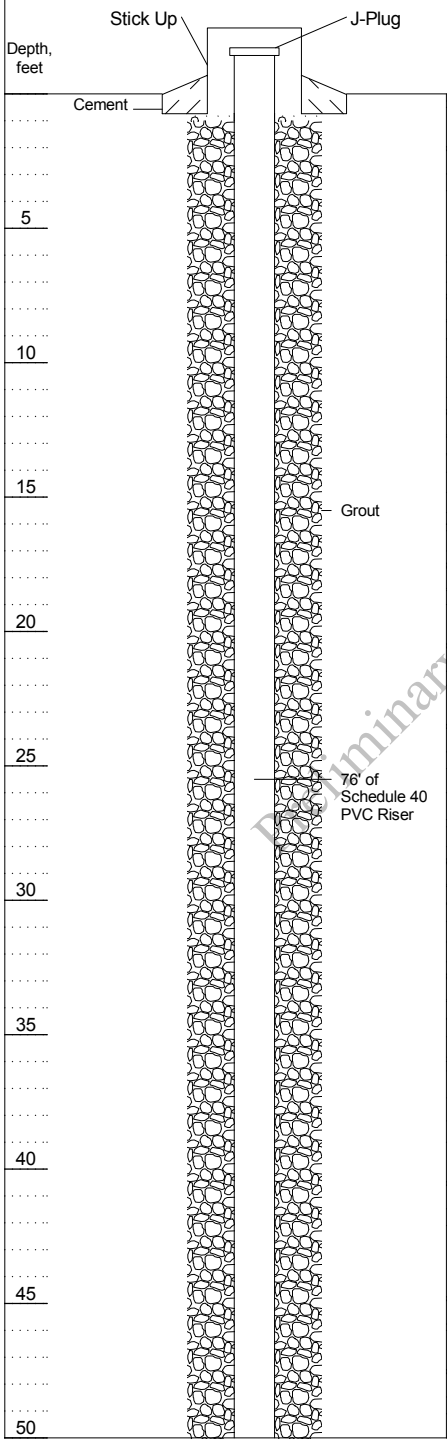
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-010	**48.399485**	**-114.137099**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **Drum Storage Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**5/18/16-5/20/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, some coarse Sand, little coarse Gravel; dry.		1.3	6 ft recovery Samples CFMW-010-SO-0-0.5 and CFMW-010-SO-0-0.5-Pb collected
	Brown, fine to coarse SAND, some coarse Gravel, trace silt; dry.		1.1	
5			2.0	Sample CFMW-010-SO-0.5-2 collected
	Brown, medium to coarse SAND, some fine to coarse Gravel, trace cobble; dry.		0.8	9 ft recovery
10			1.7	
			0.8	Sample CFMW-010-SO-10-12 collected
15				
	Brown, medium to coarse SAND, some fine to coarse Gravel; dry.		1.7	9 ft recovery
20	Brown, fine to coarse SAND, little fine to medium Gravel, trace cobble; dry.		0.8	
	Brown, fine to coarse SAND, some fine to medium Gravel; moist.		0.4	
25				
	Brown, fine to coarse SAND, some fine to coarse Gravel; moist.		1.0	9 ft recovery
	Brown, fine to medium SAND, little fine to medium Gravel; moist		2.6	
30				
			0.5	
35			0.1	
	Brown, fine to medium SAND, some coarse Sand, little fine to medium Gravel, trace cobble; moist.		0.8	9 ft recovery
40	Brown to light gray, fine to coarse SAND, some fine to coarse Gravel (angular) and Crushed rock, trace fine silt; dry.		1.7	
			0.3	
45			0.3	
	Brown to light gray, fine to coarse SAND, some fine to coarse Gravel (angular), trace silt; dry.		0.1	9 ft recovery
			0.1	
50				

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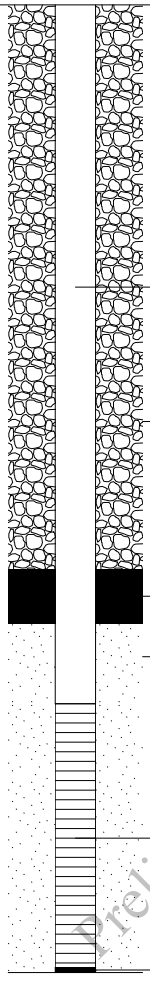
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-010	**48.399485**	**-114.137099**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown to light gray, fine to coarse SAND, some fine to coarse angular Gravel, trace silt and cobble; dry.		0.3	
55	Brown to light gray, fine to coarse SAND, little fine to coarse Gravel, trace silt; dry.		0.1	
	Light gray, fine to coarse SAND, some fine to coarse Gravel, trace silt; dry.		0.3	8 ft recovery
	No Recovery; (pink boulder).			
60				
	Brown to light gray, fine to coarse SAND, some fine to coarse Gravel; moist.		0.0	
65	Light gray, fine to coarse SAND, some fine to coarse Gravel (angular); dry.		0.0	
	Brown, fine to coarse SAND and GRAVEL; wet.		0.0	10 ft recovery
70			0.0	
	Brown, fine SAND; wet.		0.0	
75	Brown, fine to coarse SAND and GRAVEL; wet.		0.0	
			0.3	4 ft recovery
80	Brown, fine SAND; wet.		0.0	
	Brown, medium SAND and GRAVEL, trace silt; wet.		0.0	6 ft recovery
	Brown, medium SAND, some Gravel, little Silt; wet.			
85			0.0	End of boring at 86 ft bls

Graphic Log:



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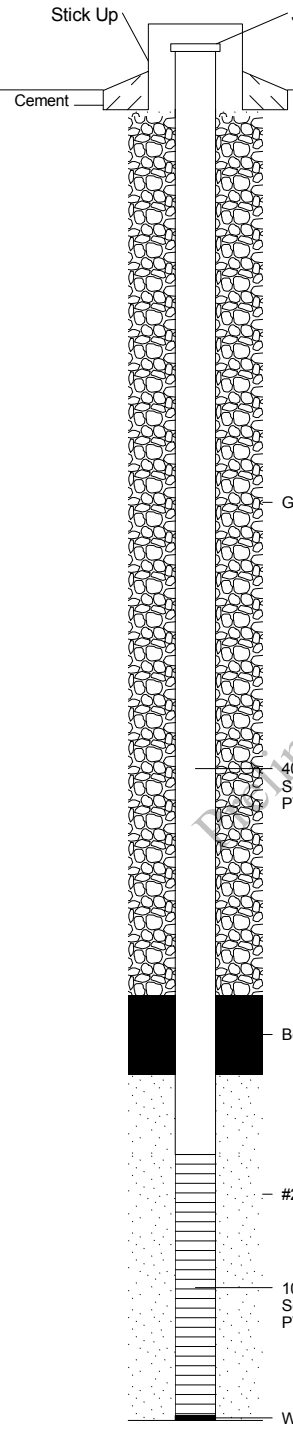
WELL CONSTRUCTION LOG

WELL NO. **CFMW-011**	LATITUDE **48.399057**	LONGITUDE **-114.139221**		
PROJECT NO./NAME **2476.0001Y002 / CFAC RI/FS Phase 1**		LOCATION **2000 Aluminum Drive Columbia Falls, Montana**		
APPROVED BY **A. Muscietta**	LOGGED BY **A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER **Cascade Drilling / Carlos Anguiano**		GEOGRAPHIC AREA **Drum Storage Area**		
DRILL BIT DIAMETER/TYPE **6-in. / Sonic Bit**	BOREHOLE DIAMETER **6-inches**	DRILLING EQUIPMENT/METHOD **Truck Mounted / Rotosonic**	SAMPLING METHOD **Continuous Core**	START-FINISH DATE **6/28/16-6/29/16**
CASING MAT./DIA. **SCH 40 PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-011a for lithology.			
5					
10					
15					
20					
25					
30					
35					Sample CFMW-011a-SO-31-36 collected
40					
45					
50					

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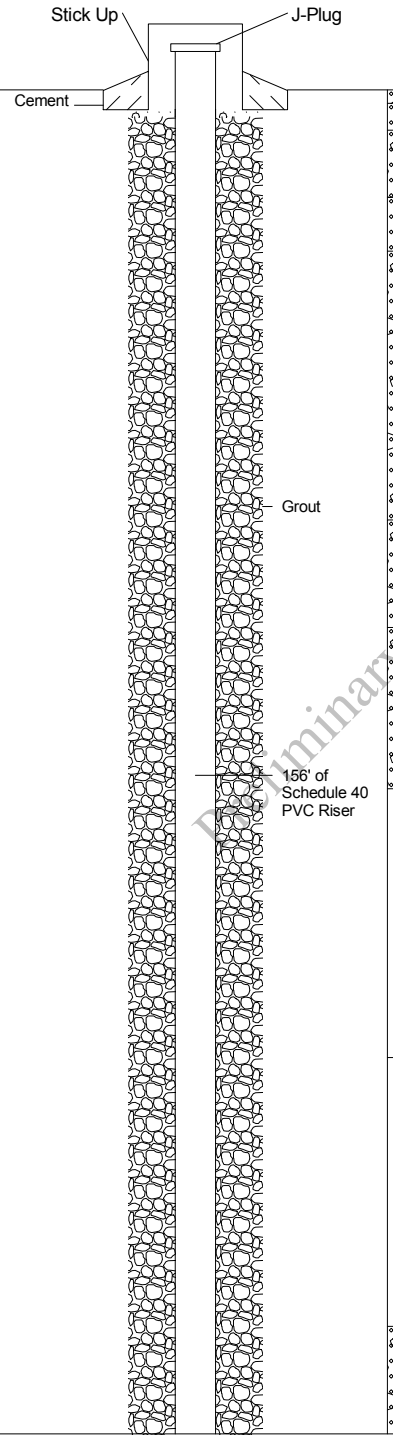
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-011a	**48.399056**	**-114.139253**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **North-West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**6/25/16-6/29/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some fine to coarse Gravel and Silt; wet (medium dense).		0.0	6 ft recovery
		Brown, fine to coarse SAND, some Silt; wet (medium dense).		0.0	Sample CFMW-011a-SO-0-0.5 and CFMW-011a-SO-0-0.5-Pb collected
5		Brown, fine to coarse SAND, some fine to coarse Gravel and Silt; wet (medium dense).		0.0	Sample CFMW-011a-SO-0.5-2 collected
		Brown, fine to coarse SAND; moist (loose).		0.0	8 ft recovery
10		Brown, fine to coarse SAND and fine to coarse GRAVEL, some Cobble; dry (loose).		0.0	
15					Sample CFMW-011a-SO-10-12 collected
20		Brown, fine to coarse SAND, some fine to coarse Gravel; moist.		0.0	6 ft recovery
25		Brown, fine to coarse SAND, some fine to coarse Gravel; moist (loose).		0.0	
30		No Recovery.			No recovery
35					Sample CFMW-011a-SO-31-36 collected
40		No Recovery.			No recovery
45					
50		Brown, fine to coarse SAND, little fine to coarse Gravel; wet (loose).			7 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-011a	**48.399056**	**-114.139253**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, little fine to coarse Gravel; wet (loose). *(continued)*		0.0	
55					55
		Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; wet (loose).		0.0	7 ft recovery
60					60
65					65
	Grout	Brown, fine to coarse SAND, little medium Gravel; wet (loose).		0.0	8 ft recovery
70					70
		Brown, fine to medium SAND; wet (loose).		0.0	
75					75
	156' of Schedule 40 PVC Riser				6 ft recovery
80				0.0	80
		Brown, fine to medium SAND, little medium to coarse Gravel; wet (loose).		0.0	
85					85
		Brown, fine to medium SAND; wet (loose).		0.0	2 ft recovery
90					90
95					95
		Light gray, fine to coarse SAND, some Silt, trace fine to medium gravel; very wet (very loose).		0.0	8 ft recovery
100		Light gray, fine to coarse SAND, some Silt, little fine to coarse Gravel, trace cobble; wet (dense).		0.0	100
105					105

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WELL NO.	LATITUDE	LONGITUDE
CFMW-011a	**48.399056**	**-114.139253**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Orange-brown, fine SAND and SILT, some fine to medium Gravel; wet (stiff). *(continued)*		0.0	8 ft recovery
115		Orange-brown, fine to coarse SAND and SILT, some fine Gravel; wet (medium stiff).		0.0	
120		Orange-brown, fine SAND and SILT, some low plasticity Clay and fine to medium Gravel; wet (very stiff).		0.0	2 ft recovery 7" Conductor casing set to 120 ft bls
125					
130		Orange-brown, fine SAND and SILT, some low plasticity Clay; moist to wet (stiff).		0.0	10 ft recovery
135		Orange-brown, fine SAND and SILT, some low plasticity Clay; moist (stiff).		0.0	
140		Orange-brown to tan, low plasticity SILTY CLAY, little fine Sand; moist (very stiff).		0.0	5 ft recovery
145		Brown, fine to coarse SAND, some Silt and fine to coarse Gravel; moist to wet (medium stiff).		0.0	5 ft recovery
150	Grout Bentonite Plug	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; wet (loose). Brown, fine to coarse SAND, some fine to coarse Gravel and Silt; moist to wet (dense).		0.0 0.0	10 ft recovery
155					
160	#2 Sand 10' of 20-Slot Schedule 40 PVC Screen	Orange-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; wet (medium dense).		0.0	10 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-011a	**48.399056**	**-114.139253**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165	Well Plug; Bentonite; Grout	Orange-brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; wet (medium dense). *(continued)*			165
					10 ft recovery
170				0.0	170
175					175
		Orange-brown, fine to coarse SAND, little fine Gravel and Silt; wet (medium dense).			10 ft recovery
180				0.0	180
		Orange-brown, fine to coarse SAND, little fine to medium Gravel, trace silt; wet (loose).		0.0	
185		Orange-brown, fine to coarse SAND, little fine to coarse Gravel and Silt; wet (medium dense).		0.0	185
		Dark orange-brown to reddish brown, fine to coarse SAND, some fine to medium Gravel and Silt, trace clay; moist (dense).			10 ft recovery
190				0.0	190
195					195
		Dark orange-brown, fine to coarse SAND, some fine to medium Gravel and Silt; moist (dense).			15 ft recovery
200				0.0	200
205					205
210					210
					15 ft recovery
215					215
220				0.0	220

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WELL NO.	LATITUDE	LONGITUDE
CFMW-011a	**48.399056**	**-114.139253**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Dark orange-brown, fine to coarse SAND, some fine to medium Gravel and Silt; moist (dense). *(continued)*			15 ft recovery
230				0.0	
235	Grout				
240		Dark orange-brown, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay; moist (stiff).			11 ft recovery
245					
250		Dark orange-brown, fine to coarse SAND and SILT, some fine to medium Gravel, little Clay; dry (stiff).		0.0	
255		Dark orange-brown, fine to coarse SAND, some fine to coarse Gravel and Silt, trace clay; moist to wet (dense).			13 ft recovery
260					
265		Dark orange-brown, fine to coarse SAND, some fine to coarse Gravel and Silt, trace clay and cobble; moist (dense).		0.0	
		BOULDER; dry.		0.0	10 ft recovery
				0.0	
270		Dark orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, trace clay and cobble; moist (stiff).			
275		Dark orage-brown, fine to coarse SAND, some Silt and fine to coarse Gravel; moist (stiff).		0.0	
		Brown to tan, fine to coarse SAND and SILT, some fine to coarse Gravel and Clay; moist (stiff).			10 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-011a	**48.399056**	**-114.139253**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280			Brown to tan, fine to coarse SAND and SILT, some fine to coarse Gravel and Clay; moist (stiff). *(continued)*		0.0	280
			Brown to tan, low plasticity SILTY CLAY, some fine to coarse Sand and fine to coarse Gravel; moist (stiff).		0.0	
285			Brown to tan, low plasticity SILTY CLAY, some fine to coarse Sand and fine to coarse Gravel; dry (stiff).		0.0	285
	Grout		Dark orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, trace clay and cobble; moist (stiff).			9 ft recovery
290					0.0	290
295						6 ft recovery 295
					0.0	
300			BOULDER; dry.			End of boring at 300 ft bls 300

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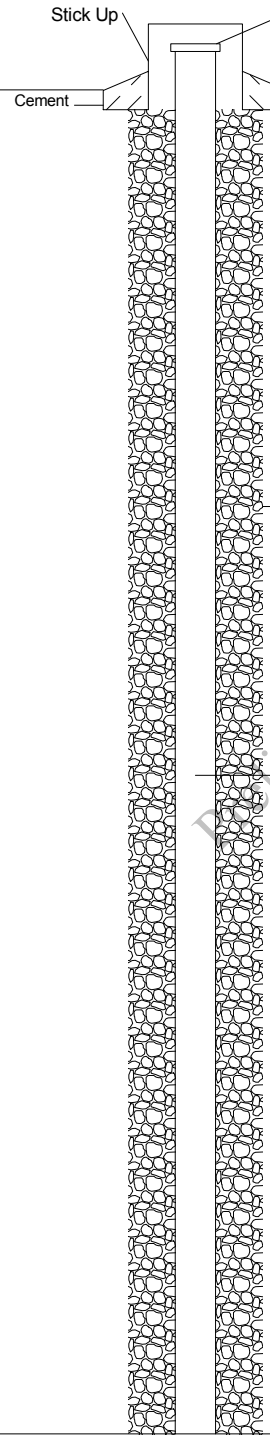
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-012a	**48.399131**	**-114.136552**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Wet Scrubber Sludge Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**5/20/16-5/24/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND; dry (topsoil).	0.7	6 ft recovery Sample CFMW-012a-SO-0-0.5 and CFMW-012a-SO-0-0.5-Pb collected
	Reddish brown, fine to coarse SAND, trace silt and gravel; dry.		
	Brown, fine to medium SAND, some coarse Sand and Gravel, little Silt; dry.	0.0	Sample CFMW-012a-SO-0.5-2 collected
5	Brown, medium to coarse SAND and fine to coarse GRAVEL, trace boulder; dry.	0.0	10 ft recovery
	Brown, fine SAND and coarse GRAVEL, some Cobble; moist.	0.1	
	Brown, coarse SAND, some fine to coarse Gravel, little Cobble, trace fine to medium sand; moist.		
10		0.0	
		0.0	Sample CFMW-012a-SO-10-12 collected
15		2.8	
	Brown, fine to coarse SAND, little fine Gravel; moist.		9 ft recovery
		0.7	
20			
	Brown, GRAVEL, trace coarse sand; dry.	0.0	
	Brown, fine to coarse SAND, some fine to coarse Gravel; moist.		
		0.8	
25			
	Brown, medium to coarse SAND, some fine to medium Gravel, trace cobble; moist.		10 ft recovery
		0.6	
30			
		0.2	
35		0.0	
	Brown, medium to coarse SAND and fine GRAVEL, trace silt and cobble; moist.		8 ft recovery
		2.1	
40		1.5	
		0.4	
	Brown to light gray, fine to coarse SAND and GRAVEL (angular), some broken Cobble, trace broken boulder; dry.		
45		1.4	
	Brown to light gray, fine to coarse SAND and fine GRAVEL, some medium to coarse Gravel, trace boulder (angular); dry.		10 ft recovery
50			

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WELL CONSTRUCTION LOG

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CFMW-012a	**48.399131**	**-114.136552**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to light gray, fine to coarse SAND and fine GRAVEL, some medium to coarse Gravel, trace boulder (angular); dry. *(continued)*		0.0	
55		Gray, GRAVEL (angular and broken), some fine to coarse Sand, trace cobble; dry.		0.0	10 ft recovery
		Gray, GRAVEL and Crushed rock; dry.		0.0	
60		Brown, fine to medium SAND, trace gravel; dry.		0.1	
		Brown, coarse SAND and fine GRAVEL, some coarse Gravel and Cobble, trace silt; moist to wet.		0.1	
65		Brown, coarse SAND and coarse GRAVEL, little fine to medium Sand, trace silt; wet.		0.1	
		Gray, fine to coarse SAND, some Gravel, little Silt; wet (dense).			5 ft recovery
70	200' of Schedule 40 PVC Riser			0.0	
		Brown, fine SAND, some Silt; wet.		0.0	
75		Brown, fine SAND and SILT; wet.		0.0	13 ft recovery Sample CFMW-012a-SO-68-73 collected
80	Grout	Brown, GRAVEL, some fine to coarse Sand; wet.		0.0	
85		Brown, fine to coarse SAND, some fine to coarse Gravel; wet.		0.0	
		Brown, fine to coarse SAND, some Gravel, little Silt; wet.		0.0	10 ft recovery
90		Brown to gray, fine SAND, some Silt, little Gravel, trace boulder; moist (stiff).		0.0	
95		Brown, SILT, some fine Sand, little Gravel and Clay; moist (stiff).		0.0	
100		Brown, fine to coarse SAND, some medium Gravel and Silt; wet.		0.0	10 ft recovery
105		Brown, fine SAND and SILT, little medium to coarse Sand and Gravel; wet.		0.0	
				0.0	5 ft recovery, rock in casing

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CFMW-012a	**48.399131**	**-114.136552**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Gray-brown, fine GRAVEL, trace coarse sand; wet. *(continued)*		0.0	
110					110
		Gray-brown, fine to coarse GRAVEL (graded); wet.		0.0	
		Gray-brown, coarse GRAVEL, trace silt; wet.			
115				0.0	115
		Brown, fine to medium SAND; wet.		0.0	10 ft recovery
		Gray, fine to coarse SAND, some Gravel and Silt; wet (dense).			
120				0.0	120
125				0.0	125
	200' of Schedule 40 PVC Riser	Brown, fine to coarse SAND, some Gravel; wet (loose).		0.0	7 ft recovery
		Brown to orange, CLAY, some fine Sand and Silt, little Gravel; dry (stiff).			
130				0.0	130 7" Conductor casing set to 130 ft bls
		Brown to orange, CLAY, some Silt, Gravel and fine Sand; dry (stiff).			10 ft recovery
135	Grout				135
140				0.0	140
145					13 ft recovery 145
150				0.0	150
155					155
160				0.0	10 ft recovery 160

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PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165	Brown to orange, CLAY, some Silt, Gravel and fine Sand; dry (stiff). *(continued)*			165
				5 ft recovery
			0.0	
170				170
	Brown to orange, CLAY, some Silt and fine Sand, little Gravel; dry (stiff).			5 ft recovery
			0.0	
175				175
	Brown to red, CLAY, some Silt; dry (stiff).			10 ft recovery
180				180
			0.0	
185				185
			0.0	Recovery not noted
	COBBLE/ROCK.		0.0	Large rock/cobble
	Brown to red, CLAY, some Silt; dry (stiff).		0.0	
190				190
	Brown, CLAY, some Silt, trace fine sand; moist.		0.0	
	Brown to red, CLAY, some Silt; dry (stiff).			
195				195
			0.0	Recovery not noted
200	COBBLE/ROCK.		0.0	200
	Brown, fine to medium SAND; moist.		0.0	
	Brown, fine to coarse SAND, some Gravel and Silt, trace cobble; wet.		0.0	
			0.0	
205	Brown, GRAVEL, some coarse Sand, trace silt; wet (loose).			205
	Brown, GRAVEL, some coarse Sand and Silt, trace cobble; wet.		0.0	Recovery not noted
	Brown, SILT, some Gravel and Clay, little fine Sand; moist.		0.0	
210				210
	Brown, SILT, some Gravel and Clay, little fine to coarse Sand; moist.		0.0	
215				215
	Brown, GRAVEL and coarse SAND, little Silt; wet.		0.0	10 ft recovery
	Brown, SILT, some Gravel, little Clay, trace fine to coarse sand; moist (hard).		0.0	
220			0.0	220

Grout
Bentonite Plug
#2 Sand
10' of 20-Slot Schedule 40 PVC Screen
Well Plug
Bentonite

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-012a	**48.399131**	**-114.136552**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Brown, SILT, some Gravel, little Clay, trace fine to coarse sand; moist (hard). *(continued)*		0.0 0.0	
230		Brown, coarse SAND, some Gravel, some Silt, little fine to medium Sand, trace clay; wet (loose).		0.0 0.0 0.0	10 ft recovery
235	Grout	Brown, coarse SAND and fine GRAVEL, some Silt, trace clay; wet (loose).		0.0	
		Brown, fine to coarse SAND and GRAVEL, some Silt, trace clay; moist (dense).		0.0	8 ft recovery
240		Brown, fine to coarse SAND and fine GRAVEL, some Silt, trace clay; wet (loose).		0.0	
		Tan, CLAY, some Silt; dry to moist (stiff).		0.0	
245		Tan, CLAY, some Silt; dry (stiff).		0.0	10 ft recovery
250		Reddish tan, CLAY, some Silt; dry (stiff).		0.0 0.0	
255		Tan, CLAY, some Silt and Gravel; dry (stiff).		0.0	End of boring at 254 ft bls

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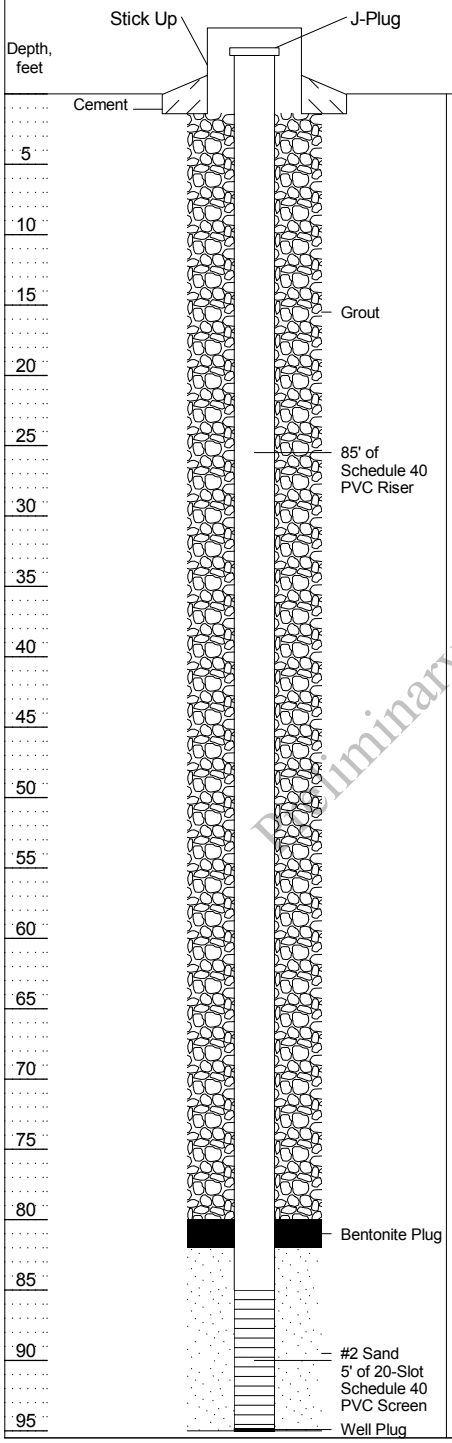
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-016	**48.39891**	**-114.13305**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Center Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**6/24/16-6/24/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted**	MAT. **SCH 40 PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-016a for lithology.			

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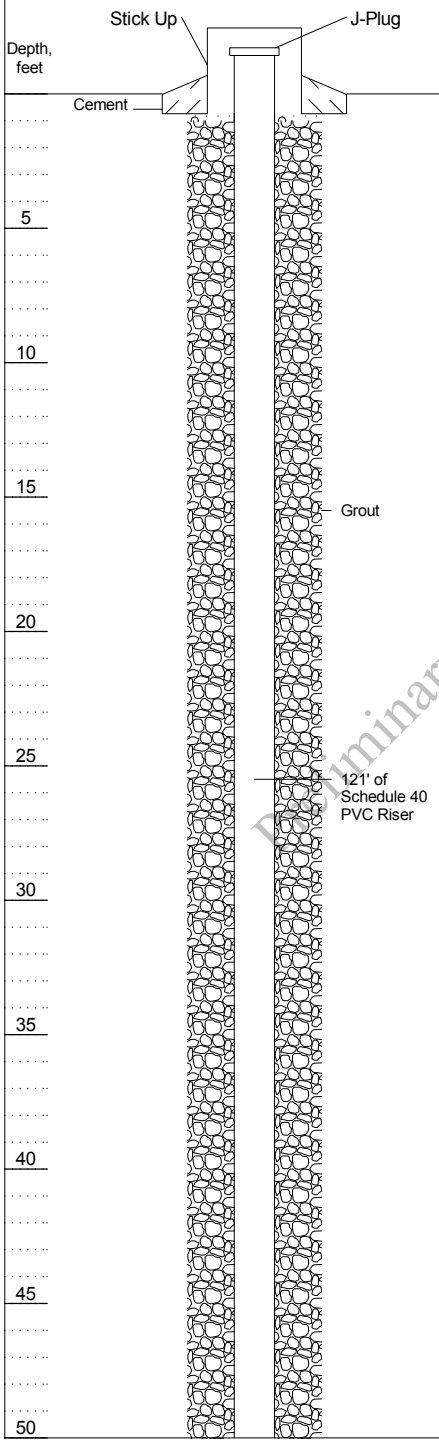
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-016a	**48.398934**	**-114.133053**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Center Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**6/21/16-6/25/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **5.0** ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND, some fine to medium Gravel, trace silt; moist.		0.0	6 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace silt; moist.		0.6	Sample CFMW-016a-SO-0-0.5 and CFMW-016a-SO-0-0.5-Pb collected
5	Gray, fine to coarse SAND, some Silt, little fine to medium Gravel; wet (loose).		0.8	Sample CFMW-016a-SO-0.5-2 collected
	Tan-brown, coarse SAND, some fine to medium Gravel, little fine to medium Sand, trace silt; wet.		0.1	8 ft recovery
10	Dark gray, fine to medium SAND, some Silt and fine to coarse Gravel, trace cobble; wet (loose).			
			0.5	Sample CFMW-016a-SO-10-12 collected
15				
			0.2	9 ft recovery
20	Light gray, fine to coarse SAND, some fine to coarse Gravel, little Cobble and Silt; wet.			
			0.2	
25	Light gray, fine to coarse SAND, some fine to coarse Gravel; wet.		0.1	
	Dark brown, PEAT with Organics, some light gray fine Sand and Silt.		0.0	9 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Grave, trace silt; wet (loose).			
30	Brown, fine SAND, little fine to medium Gravel; wet.		0.0	
35	Brown, fine to coarse SAND, little fine to medium Gravel; moist to dry.		0.0	
	Dark gray, fine to coarse SAND, little Silt and fine to medium Gravel; wet (loose).		0.0	9 ft recovery
40	Brown, fine to coarse SAND, little fine to coarse Gravel, trace medium to coarse sand and silt; moist.		0.0	
45				
	Brown, fine to coarse SAND, some fine to coarse Gravel; trace silt; moist to dry.		0.0	2 ft recovery; hard drilling
	Brown to red, fine to coarse SAND, some fine to coarse Gravel and broken Boulder, trace silt; dry (dense).		0.0	6 ft recovery; hard drilling
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-016a	**48.398934**	**-114.133053**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and fine to coarse Gravel, trace silt; dry (loose). *(continued)*		0.0	
		Brown, fine to coarse SAND and fine to coarse GRAVEL (pulverized), trace silt; dry (loose).		0.0	
55					10 ft recovery
		Brown, fine to coarse SAND, some Boulder and Cobble (pulverized), little fine to coarse Gravel; dry (loose).			
60				0.0	
65		Dark gray, fine to coarse SAND, some Cobble and fine to coarse Gravel, trace silt; wet (loose).			10 ft recovery; hard drilling
	Grout			0.0	
70					
		Brown, fine to coarse SAND, some Boulder and Cobble (pulverized); dry.		0.0	
		Brown, coarse SAND, some fine to coarse Gravel, trace cobble; moist.		0.0	
		Brown, fine to coarse SAND, some fine to coarse Gravel and Cobble (pulverized), little silt; dry (dense).		0.0	
75	121' of Schedule 40 PVC Riser			0.0	8 ft recovery
		Brown, coarse SAND, some fine to medium Gravel, trace fine to medium sand; wet (loose).			
80				0.0	
					Sample CFMW-016a-SO-79-84 collected
85					
		No Recovery.			No Recovery
90					
95					
		No Recovery.			No Recovery
100				0.0	
		Brown, fine to coarse SAND, some fine to coarse Gravel and Cobble, trace silt; wet (medium dense).			
105				0.0	
					8 ft recovery

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-016a	**48.398934**	**-114.133053**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Brown, fine to coarse SAND, trace cobble; wet (loose). *(continued)*		0.0	
115		Brown, fine to coarse SAND, some fine to coarse Gravel; wet (loose).		0.0	
	Bentonite Plug	Brown, fine to coarse SAND; wet (loose).		0.0	10 ft recovery
120	#2 Sand	Brown, fine to coarse SAND, little Silt, Cobble and fine to coarse Gravel; moist (medium dense).		0.0	
125	5' of 20-Slot Schedule 40 PVC Screen; Well Plug	Brown, fine to coarse SAND, little Silt and fine to coarse Gravel; dry (medium dense).		0.0	
		Brown, fine to coarse SAND, some Silt and fine to coarse Gravel; dry (loose).		0.0	3 ft recovery
	Bentonite	Orange brown, fine to coarse SAND, some Silt, little fine Gravel and Clay; moist (dense).		0.0	
130		Orange brown, fine to coarse SAND and SILT, some fine Gravel and Clay; moist (stiff).			10 ft recovery
135				0.0	7" Conductor casing set to 135 ft bls
140					12 ft recovery
145	Grout			0.0	
150					
155					15 ft recovery
160				0.0	

Preliminary Data and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-016a	**48.398934**	**-114.133053**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		Orange brown, fine to coarse SAND and SILT, some fine Gravel and Clay; moist (stiff). *(continued)*			165
					15 ft recovery
170					170
				0.0	
175	Grout				175
180					180
					15 ft recovery
185					185
				0.0	
190					190
195					195
					15 ft recovery
200					200
				0.0	
205					205
210					210
					15 ft recovery
215					215
				0.0	
220					220

Preliminary Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-016a	**48.398934**	**-114.133053**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Orange brown, fine to coarse SAND and SILT, some fine Gravel and Clay; moist (stiff). *(continued)*			225
					15 ft recovery
230					230
	Grout			0.0	
235					235
240					240
					15 ft recovery
245					245
				0.0	
250					250
255					255
					15 ft recovery
				0.0	
260		Reddish brown, fine to coarse SAND and SILT, some fine Gravel and Clay; moist (stiff).			260
				0.0	
265					265
270		Orange brown, fine to coarse SAND and SILT, some fine Gravel and Clay; moist (stiff).		0.0	270
					15 ft recovery
275					275

Preliminary Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-016a	**48.398934**	**-114.133053**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS	
280			Orange brown, fine to coarse SAND and SILT, some fine Gravel and Clay; moist (stiff). *(continued)*		0.0		280
285	Grout						285
						7 ft recovery	
290					0.0		290
						7 ft recovery	
295					0.0		295
300						End of boring at 300 ft bls	300

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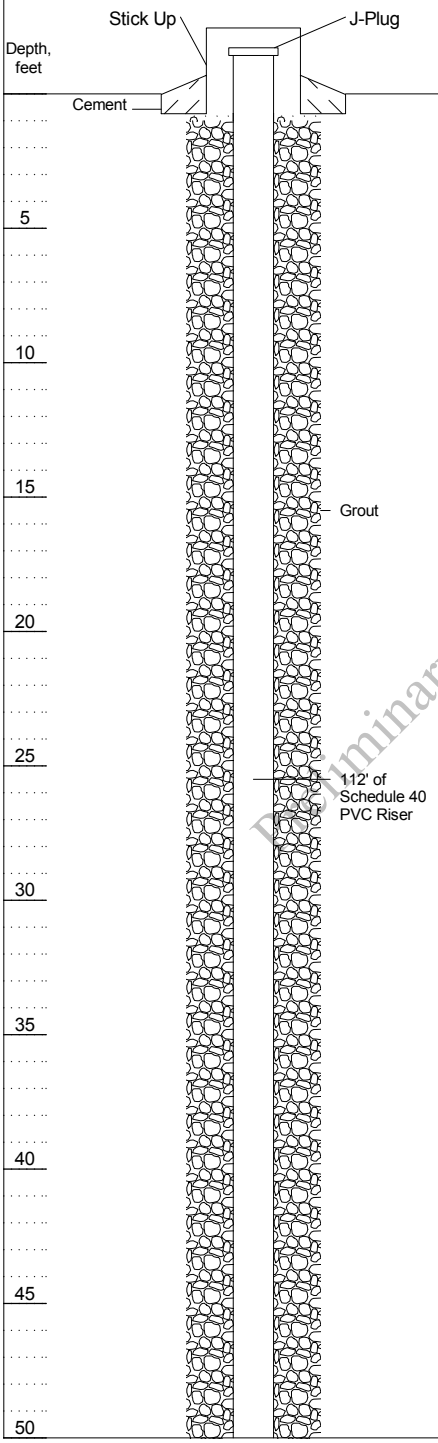
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-018	**48.398746**	**-114.130431**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**East Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**5/19/16-5/28/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, SILT, some fine Sand, little Gravel, trace cobble; dry.		1.7	5 ft recovery Sample CFMW-018-SO-0-0.5 and CFMW-018-SO-0-0.5-Pb collected
	Gray, COBBLE, some Crushed rock and fine Sand; dry.		0.7	Sample CFMW-018-SO-0.5-2 collected
5	Brown-gray, COBBLE, some Crushed rock; dry.		0.7	5 ft recovery
	Brown, fine SAND and GRAVEL, trace silt; dry.		2.8	
10			0.4	
	Gray, COBBLE, some Crushed rock; dry (loose).		2.4	5 ft recovery
	Brown, fine to medium SAND, little Gravel; moist.			Sample CFMW-018a-SO-10-12 collected
15	Gray, fine to medium SAND, some Crushed rock, little Gravel, trace cobble; moist (loose).		0.7	5 ft recovery
			1.8	
20	Gray, fine to meidum SAND, some Gravel, little Crushed rock, trace cobble; dry (loose).			
	Brown, fine to medium SAND, little Gravel, trace crushed rock and cobble; dry.		0.5	3 ft recovery
25	Brown, medium to coarse SAND, little Gravel, trace cobble; moist.		1	
	Gray, fine to coarse SAND, some Gravel, trace cobble; moist.		0.6	2.5 ft recovery
30				
	Gray, fine to coarse SAND, some Gravel, some Crushed rock, trace cobble; dry.		0.1	5 ft recovery
	Gray, fine to coarse SAND, some Gravel, little Crushed rock, trace cobble and silt; dry (loose).		0.1	
35	Gray, fine to coarse SAND, some Gravel, little Crushed rock, trace cobble; dry (loose).			2.5 ft recovery
			0.7	
40				
	Gray, fine to coarse SAND, some Gravel, trace cobble and crushed rock; dry (loose).		0.4	5 ft recovery
	Brown, medium to coarse SAND, some Gravel, trace cobble; moist (loose).		0.6	
45	Gray, fine to coarse SAND, some Gravel and Crushed rock, trace cobble; dry.			
	Gray, GRAVEL and SAND, trace cobble and crushed rock; dry.		0.4	5 ft recovery
	Brown, fine to coarse SAND, some Gravel, trace cobble and crushed rock; dry.		0.1	
50	Gray, fine to coarse SAND and GRAVEL, little Silt, trace Cobble and crushed rock;			

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-018	**48.398746**	**-114.130431**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		dry.			5 ft recovery
		Gray, fine to coarse SAND, some Gravel and Crushed rock, little Cobble; dry.			
55					55
				0.0	5 ft recovery
		Gray, fine SAND, some Crushed rock, trace cobble and gravel; dry.		0.0	
		Gray, fine to coarse SAND, some Gravel, little Crushed rock, trace cobble; dry.		0.0	
60					60
		Gray, medium to coarse SAND, some Gravel, trace cobble and silt; dry.			5 ft recovery
				0.0	
65					65
	Grout				5 ft recovery
				0.0	
		Gray, fine to medium SAND, some coarse Gravel and Crushed rock, trace cobble; dry.		0.0	
70					70
					2.5 ft recovery
				0.0	
75					75
	112' of Schedule 40 PVC Riser	Gray to red, fine to medium SAND, some Gravel and Crushed rock, trace cobble; dry.			4 ft recovery
80					80
				0.0	4 ft recovery
85					85
		Gray, fine to coarse SAND, little Gravel, trace cobble; dry.		0.0	5 ft recovery
		Gray, fine SAND, some Crushed rock, trace cobble and gravel; moist.		0.0	
90		Brown, fine to medium SAND, little Gravel, trace cobble; moist.			90
					5 ft recovery
95					95
					5 ft recovery
				0.0	
100		Brown to gray, fine to medium SAND and coarse Gravel, trace cobble; moist to wet.		0.0	Orange staining 100
					5 ft recovery
		Gray to purple, coarse GRAVEL and medium to coarse SAND, little Silt, few Cobble; wet.		0.0	
105					105
	Bentonite Plug	Gray to purple, fine to medium SAND, some coarse Gravel, little Silt, trace cobble;		0.0	5 ft recovery

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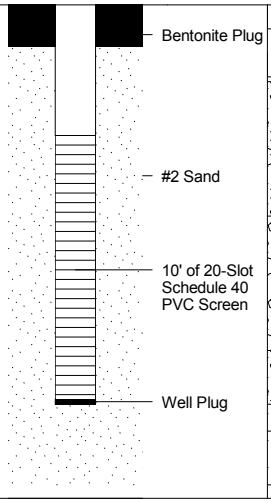
WELL NO.	LATITUDE	LONGITUDE
CFMW-018	**48.398746**	**-114.130431**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	wet.			
	Gray to purple, medium GRAVEL, few Cobble, little medium to coarse SAND; wet. *(continued)*		0.0	
110				110
	Brown, medium to coarse SAND, some medium to coarse Gravel, trace silt and cobble; moist to wet.			5 ft recovery
115			0.0	115
	Gray to purple, medium to coarse GRAVEL and fine to coarse SAND, some Cobble, little Silt; wet.		0.0	5 ft recovery
120				120
	Gray, medium to coarse SAND, some medium Gravel, little Silt, trace cobble; wet.		0.0	5 ft recovery
	Red to brown, SAND and SILT, some Cobble, little Gravel; moisture not noted.			Blue staining
125	Brown, fine to medium SAND and SILT, little Gravel; moist to wet.		0.0	End of boring at 125 ft bls 125



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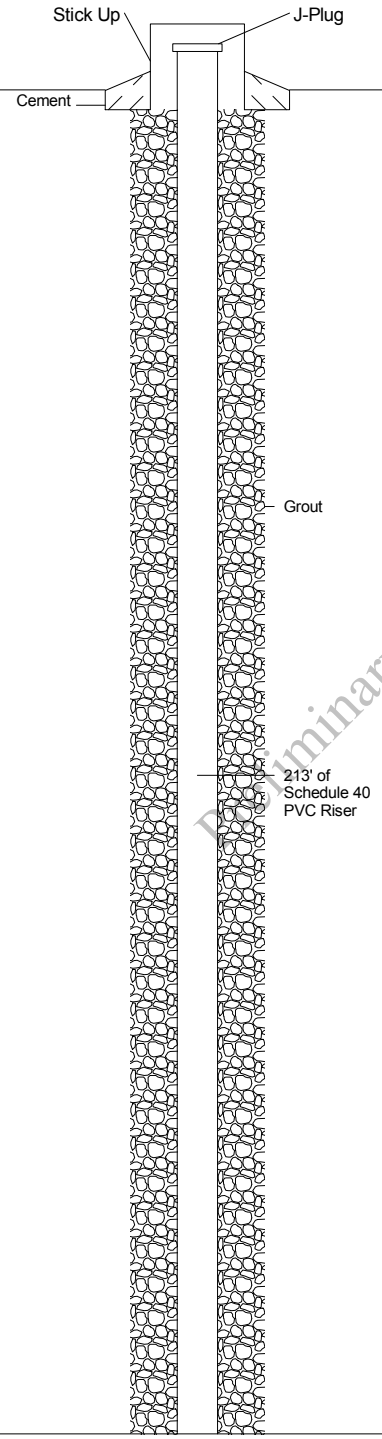
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-019a	**48.398029**	**-114.13571**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **Wet Scrubber Sludge Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**5/25/16-5/28/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND, little Gravel, trace silt; moist.	0.1	6 ft recovery
	Tan, fine to coarse SAND, some Silt, little Gravel; moist.	0.3	Sample CFMW-019a-SO-0-0.5 collected
	Tan, fine to coarse SAND, some Silt, trace gravel; moist.	0.0	Sample CFMW-019a-SO-0.5-2 collected
5			
	Brown, GRAVEL, some fine to coarse Sand; moist.	0.1	6 ft recovery
	Brown, fine to coarse SAND, some Gravel and Cobble; moist.	2.0	
10			
	BOULDER.		
	Brown, fine to coarse SAND, some Gravel and Cobble; moist.		Sample CFMW-019a-SO-10-12 collected
15		2.9	
	Brown, course SAND and fine GRAVEL, some fine to medium Sand, trace cobble; moist.	2.2	9 ft recovery
20			
	Brown, fine to coarse SAND and fine GRAVEL, trace cobble; dry.	0.5	
	Brown, coarse SAND and fine GRAVEL; little fine Sand; trace cobble; dry.	2.1	
25			
	Brown, coarse SAND and fine GRAVEL, little fine to medium Sand; dry.		5 ft recovery
30		0.6	
35	Brown, GRAVEL, some coarse Sand, trace fine to medium sand and cobble; dry.	0.0	
	Brown, coarse SAND and fine GRAVEL, trace fine to medium sand and cobble; moist.	0.9	10 ft recovery
40	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; dry.	1.2	
45		1.3	
		5.4	9 ft recovery
50			

Preliminary Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-019a	**48.398029**	**-114.13571**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; dry. *(continued)*		1.6	
	Brown, fine to coarse SAND, some fine Gravel and Silt; dry.		2.5	
55				55
	BOULDER (broken), some Crushed rock; dry.			6 ft recovery
	Tan to gray, fine to coarse SAND, little fine Gravel and Silt; dry.		3.8	
60				60
65			3.5	65
	No Recovery.			No recovery
70			0.0	70
75				75
				No recovery
80			0.0	80
85				85
				No recovery
90				90
95				95
	Brown, fine to coarse SAND, some Gravel, trace cobble; wet.			10 ft recovery
			0.0	
100				100
	Brown, fine to coarse SAND, little Gravel; wet.		0.0	
	Brown, fine to coarse SAND, some Gravel, trace cobble; wet.			
105				105
			0.0	
				9 ft recovery

213' of Schedule 40 PVC Riser

Grout

Preliminary - Under EPA and MDEQ Review

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WELL NO.	LATITUDE	LONGITUDE
CFMW-019a	**48.398029**	**-114.13571**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Gravel; wet. *(continued)*		4.1	
110	Brown, fine to medium SAND, trace gravel; wet.		1.7	
	Brown to gray-brown, fine SAND and SILT, little fine Gravel; wet (stiff).		1.7	
115				
	Brown, fine to coarse SAND, some Silt, little Gravel; wet.		0.4	8 ft recovery
	Brown, fine to coarse SAND, little Gravel, trace silt; wet.		0.3	
120				
	Brown, fine to coarse SAND, little Gravel and Silt; wet.		0.1	
	Brownish gray, fine to coarse SAND, little Gravel and Silt; dry (loose).		0.2	
125	Brownish gray, fine to coarse SAND and SILT, some Gravel; dry (soft).		4.2	4 ft recovery
	Brown, fine SAND and SILT, some medium to coarse Sand, little Gravel; dry (soft).		7.8	
	Brownish gray, fine to coarse SAND, some Gravel and Silt; dry (loose).		0.0	6 ft recovery
130	Brownish gray, fine to coarse SAND, some Gravel and Silt; wet (loose).		0.3	
	Brownish gray, fine to coarse SAND, some Gravel and Silt; wet (medium dense).		0.2	
	Gray, fine to coarse SAND, some Gravel and Silt; dry (loose).		0.1	
135	Brownish orange, fine to coarse SAND and SILT, some fine Gravel, little medium Gravel; moist to dry (medium soft).		0.3	12 ft recovery
	Brownish orange, SILT, some Clay, little fine to medium Gravel; moist (very stiff).			
140	Brownish orange, SILT, some Clay and fine Gravel; moist (very stiff).		0.2	
	Brownish orange, SILT, some Clay, little fine to coarse Gravel; moist (stiff).		1.1	
	Brownish orange, SILT, some Clay, little fine to coarse Gravel; moist (very stiff).			
145			0.4	
	Brownish orange, SILT, some Clay, trace gravel; moist (very stiff).		0.2	10 ft recovery
150			0.1	7" Conductor casing set to 150 ft bls
155				
	Brownish orange, SILT and CLAY, little fine Gravel; moist (very stiff).		0.0	10 ft recovery
160			0.0	

213' of Schedule 40 PVC Riser

Grout

Preliminary Draft Pending WDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-019a	**48.398029**	**-114.13571**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165	Brownish orange, SILT and CLAY, trace fine gravel; moist (very stiff). *(continued)*		0.0	
	Brownish orange, SILT and CLAY, some fine Gravel, little fine to coarse Sand; moist (stiff).		0.0	2 ft recovery
	Tan, SILT and low plasticity CLAY, trace fine sand; moist (very stiff).		0.0	14 ft recovery
170			0.0	
175	Reddish brown, SILT and low plasticity CLAY, trace fine sand; moist (very stiff).		0.0	
			0.0	
180	Reddish brown and tan, SILT and low plasticity CLAY, trace fine sand; dry (very stiff).			
	Reddish brown, SILT and low plasticity CLAY, trace fine sand; moist (very stiff).			12 ft recovery
185			0.0	
	Reddish brown, SILT and low plasticity CLAY, trace fine sand; dry (very stiff).			
190			0.0	
	Reddish brown, SILT, some low plasticity Clay, little fine Sand; moist (stiff).		0.0	
	Reddish brown and tan, SILT and low plasticity CLAY, trace fine sand; dry (very stiff).		0.0	
195	Reddish brown, SILT, some Clay, trace fine sand; moist (stiff).		0.0	12 ft recovery
	Reddish brown and tan, SILT and CLAY, trace fine sand; dry (very stiff).		0.0	
	Brown, fine to coarse SAND, some medium to fine Gravel (angular); dry (loose).		0.0	
200			0.0	
	Brown, fine to coarse SAND, some fine to coarse Gravel, interbedded with 6" Silt every 1'; wet (medium dense).			
205				
	Brown, fine to coarse SAND, some fine to medium Gravel, little Silt; moist (loose).		0.0	7 ft recovery
210			0.0	
	Brown, fine to coarse SAND, some Gravel (angular), little broken Cobble; dry.		0.0	
	Brown, fine to coarse SAND, some Gravel, little Silt; wet (loose).		0.0	13 ft recovery
215	Brown, fine to coarse SAND, some Gravel, little Silt; wet (medium dense).		0.0	
220	Brown, fine to coarse SAND, some Silt, little Gravel; wet (medium dense).			

Grout
#2 Sand
Bentonite Plug
10' of 20-Slot Schedule 40 PVC Screen
Well Plug

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-019a	**48.398029**	**-114.13571**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Silt, little Gravel; wet (medium dense). *(continued)*		0.0	
225	Brown, fine to coarse SAND, some Silt and Gravel, trace clay; moist (dense).		0.0	225
	Brown, fine to coarse SAND, little Silt and Gravel; wet (medium dense).			9 ft recovery
			0.0	
230	Bentonite		0.0	230
235	Brown, fine to coarse GRAVEL, little fine to coarse Sand and Silt; wet (loose).		0.0	235
	Brown, fine to coarse SAND, some fine Gravel, little Silt; wet (medium dense).		0.0	11 ft recovery
240	Brownish orange, fine to coarse SAND, some Silt, little Gravel, trace clay; moist (dense).		0.0	240
245	Brownish orange, SILT and CLAY, trace fine sand; moist (very stiff).		0.0	245
	Reddish brown, SILT and CLAY, trace fine sand; moist (very stiff).		0.0	10 ft recovery
250			0.0	250
255	Grout			255
	Reddish brown, SILT and CLAY, some Gravel, trace fine sand; dry (very stiff).		0.0	10 ft recovery
	Brown to tan, fine to coarse SAND, some Gravel and Silt; wet (medium dense).			
260			0.0	260
265				265
	Brown, fine to coarse SAND, some Silt and Gravel, trace cobble; dry (dense).		0.0	7 ft recovery
270	Brown, fine to coarse SAND, some Silt and Gravel; wet (medium dense).		0.0	270
	Brown, fine to coarse SAND, some Silt and Gravel, trace cobble; dry (dense).		0.0	
	Brown, fine to coarse SAND, some Gravel and Silt; wet (medium dense).		0.0	4 ft recovery
275	Brown, fine to coarse SAND, some Gravel and Silt, little cobble; dry (loose).		0.0	275
				7 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-019a	**48.398029**	**-114.13571**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS	
280			Brown, fine to coarse SAND, some Silt and fine to coarse Gravel, little broken cobble; dry (dense). *(continued)*		0.0		280
285			Brown, fine to coarse SAND, some Gravel and Silt, little Cobble and broken Boulder; dry (dense).		0.0	3 ft recovery	285
			Brown, fine to coarse SAND, some Gravel and Silt, trace cobble; dry (dense).			6.5 ft recovery	
290	Grout		Brown, fine to coarse SAND, some Silt, little Gravel; moist (medium dense).				290
			Brown, fine to coarse SAND, some Gravel and Silt, little Cobble, trace boulder; dry (dense).				
295			No Recovery.			No recovery	295
300			Brown to tan, fine to coarse SAND, some Gravel and Silt, trace clay; wet (medium dense).		0.0	3 ft recovery End of boring at 300 ft bls	300

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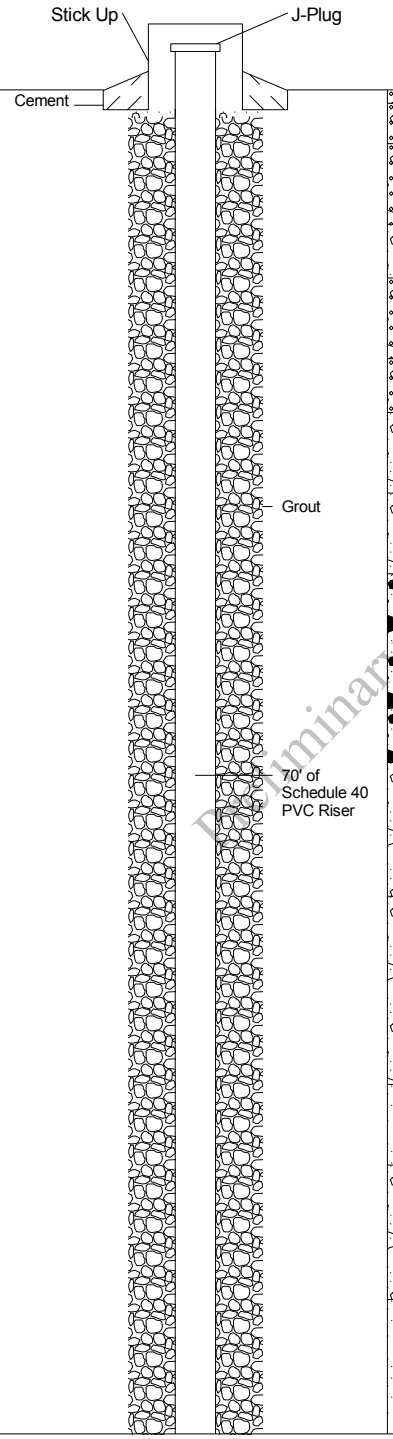
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-022	**48.397448**	**-114.132975**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**East Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/2/16-6/3/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Gravel, little Cobble; moist.		0.0	5 ft recovery
	Brown to gray, fine to coarse SAND, some fine to coarse Gravel and Cobble, little crushed Rock, trace silt; dry to moist.		0.1	Sample CFMW-022-SO-0-0.5 and CFMW-022-SO-0-0.5-Pb collected
			0.0	Sample CFMW-022-SO-0.5-2 collected
5	Brown, fine to coarse SAND, some fine to medium Gravel, little Silt and Cobble; moist.			3.5 ft recovery
			0.0	
	Brown, medium to coarse SAND, some medium to coarse Gravel, trace cobble and silt; moist to wet.			Black staining
			0.0	
10	Brown-orange, fine to medium SAND, some Gravel, little silt and cobble; moist to wet.			4.5 ft recovery
			0.0	
	Brown, fine to coarse SAND, some fine to coarse Gravel and Cobble, trace silt; moist.			
	Brown to dark gray, fine to medium SAND, some coarse Gravel, crushed Rock and Silt, little Cobble; moist.		0.0	Sample CFMW-022-SO-10-12 collected
15	Brown, fine to medium SAND and GRAVEL, some Silt, little Cobble and crushed Rock, trace silt; moist.			5 ft recovery
			0.0	
20	Brown, fine to coarse GRAVEL, some fine to coarse Sand and Cobble, little Silt and crushed Rock; moist.			5 ft recovery
			0.0	
25	Brown, fine to coarse GRAVEL, some Cobble, little fine to coarse Sand, Silt and crushed Rock; moist.		0.0	
	Brown, coarse SAND, some medium to coarse Gravel and Cobble, little crushed Rock; moist.			3.5 ft recovery
			0.0	
30	Brown to gray, fine to medium SAND, some coarse Gravel, little cobble, trace silt; moist.			5 ft recovery
			0.0	
35				4 ft recovery
			0.0	
	Brown, fine to medium SAND, trace cobble and silt; moist.		0.0	
40	Brown, fine to medium SAND, some coarse GraveL and crushed Rock, little Silt; dry.			5 ft recovery
			0.0	
45	Brown, fine to medium SAND; moist to wet.			5 ft recovery
50			0.0	

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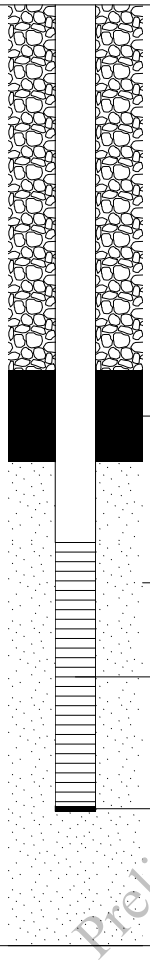
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-022	**48.397448**	**-114.132975**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to medium SAND; moist to wet. *(continued)*			5 ft recovery
	Brown, fine SAND; wet.		0.0	
55	Brown, SILT, little Clay, trace sand; moist to wet (soft).		0.0	55
	Brown, fine SAND, trace silt; wet (loose).		0.0	5 ft recovery
	Brown, fine SAND and SILT, little Gravel, trace cobble; moist to wet.		0.0	
60				60
	Brown, coarse GRAVEL, some fine to medium Sand and Cobbles; wet.			2.5 ft recovery
			0.0	
65				65
	Brown, fine to coarse SAND and Gravel, little Silt and Cobble; wet (dense).		0.0	5 ft recovery
	Brown, medium to coarse GRAVEL, some fine to medium Sand, little Cobble, trace silt; wet.			
70				70
			0.0	4 ft recovery
	Brown, medium to coarse GRAVEL, some fine to medium Sand and Silt, little Cobble; wet (dense).		0.0	
75			0.0	75
	Brown, medium to coarse GRAVEL, some fine to medium Sand and Cobble, trace silt; wet (loose).		0.0	5 ft recovery
	Brown, medium to coarse GRAVEL, some fine Sand, little Cobble and Silt; wet (dense).			
80				80
	Brown, medium to coarse GRAVEL, some fine to medium Sand, little Cobble, trace silt; wet (loose to dense).		0.0	
85	Brown, medium to coarse GRAVEL and SAND, little Cobble and Silt; wet (dense).		0.0	End of boring at 85 ft bls



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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-023a	**Not Measured**	**Not Measured**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **South Leachate Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**6/17/16-6/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to coarse SAND, little Gravel, trace silt; moist.		0.0	6 ft recovery
		Light brown, fine to coarse SAND, some fine to medium Gravel, little Silt; moist.		0.0	Sample CFMW-023a-SO-0-0.5 and CFMW-023a-SO-0-0.5-Pb collected
5				0.3	Sample CFMW-023a-SO-0.5-2 collected
		Brown, fine to medium GRAVEL, some fine to coarse Sand, trace boulder; moist.			10 ft recovery
10				1.4	
		Brown, fine SAND, some Silt, little Cobble; moist.			
15				0.6	Sample CFMW-023a-SO-10-12 collected
		COBBLE/ROCK.		0.0	
		Brown, fine to coarse SAND and fine to medium GRAVEL, trace silt; moist.			5 ft recovery
				1.0	
20		COBBLE/ROCK.		0.0	
		Brown, fine to coarse SAND and fine to medium GRAVEL; trace silt; moist.			
25				0.8	
		Brown, fine to coarse SAND and fine to medium GRAVEL; trace cobble and silt; moist.			6 ft recovery
				0.0	
30		Brown, fine to coarse SAND and fine to medium GRAVEL, trace cobble; moist.			
				0.1	
35		Brown, fine to coarse SAND and fine to medium GRAVEL; trace cobble and silt; moist.		0.1	
		Brown, fine to coarse SAND, some broken Cobble and Gravel (angular), trace silt; dry.		0.2	2 ft recovery
40		Brown, fine to coarse SAND, some Cobble, little Gravel (angular), trace silt; dry.			7 ft recovery 38 through 107 ft PID not recorded (sample core too hot)
45					
		Brown, fine to coarse SAND, some Cobble and fine to coarse Gravel, trace silt; moist.			6 ft recovery
50					

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-023a	**Not Measured**	**Not Measured**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Boulder and fine to coarse Gravel; dry.			3 ft recovery
55		Brown, fine to coarse SAND and medium GRAVEL, some Cobble and broken Boulder; moist.			6 ft recovery
		Brown, fine to coarse SAND, some fine to medium Gravel, trace cobble; dry.			
60		Brown, fine to coarse SAND and medium GRAVEL, trace broken boulder; dry.			2 ft recovery
		Brown, fine to coarse SAND, some broken Cobble, little fine to coarse Gravel (angular); dry.			7 ft recovery
65					
		Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.			
70		Brown, fine to coarse SAND and fine to coarse GRAVEL, some broken Cobble; dry.			8 ft recovery
75					
80		Brown, fine to coarse SAND and fine to medium GRAVEL, some Cobble, little broken Boulder and coarse Gravel; dry.			8 ft recovery
85					
90		Brown, fine to coarse SAND, some broken Cobble, some fine to coarse Gravel; dry.			11 ft recovery
95					
		Brown, coarse SAND, little fine to medium Sand, trace gravel; dry.			
100		Brown, fine to coarse SAND, some broken Cobble and fine to coarse Gravel, trace silt; dry.			8 ft recovery
105					

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-023a	**Not Measured**	**Not Measured**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some broken Boulder and fine to coarse Gravel; dry. *(continued)*			12 ft recovery
110				0.0	
		Brown, fine to coarse SAND, little fine to medium Gravel, trace silt; moist.			
115					
		Brown, fine to coarse SAND, little fine to medium Gravel, trace silt; wet,		0.0	
		Brown, fine to coarse SAND, little fine to medium Gravel and Silt; wet.		0.0	
120		Tan to brown, fine SAND, little fine Gravel, trace silt; wet.			10 ft recovery
				0.0	
125		Gray-brown, fine to coarse SAND, some Silt, little fine to coarse Gravel; moist (medium dense).		0.0	
		Brown, fine to coarse SAND, some Silt and broken Boulder, little fine to coarse Gravel; dry.		0.0	Sample CFMW-023a-SO-123-128 collected
130		Tan-brown and purple, fine SAND, little Silt and broken Boulder; moist (dense).		0.0	
		Brown, fine to coarse SAND, some Silt, little fine to coarse Gravel; dry (dense).		0.0	
135		Brown-gray, fine to coarse SAND, little Cobble and fine to coarse Gravel, trace silt; wet (loose).			12 ft recovery
				0.0	
140		Brown-gray, medium GRAVEL, little fine to coarse Sand and Silt; wet (loose).		0.0	
		Brown, fine to coarse SAND, some fine to coarse Gravel; wet (loose).		0.0	
145		Brown, fine to coarse SAND, little fine to coarse Gravel and Silt; moist (loose).		0.0	
		Purple, fine SAND and SILT, some fine to medium Gravel, trace clay; dry (very stiff).		0.0	2 ft recovery
150				0.0	4 ft recovery
		Rock (pulverized).		0.0	
		Purple-gray, ROCK (pulverized), some cobble, pulverized to a silty clay powder; dry.		0.0	2 ft recovery
155		Purple-gray, ROCK (pulverized), some Cobble, pulverized to a silty clay powder; moist from drilling water.		0.0	4 ft recovery
		Purple-gray, ROCK (pulverized), trace cobble, pulverized to a silty clay powder; dry.		0.0	
160		Purple-gray, ROCK (pulverized), some fine to medium Gravel, pulverized to a silty clay powder; moist and stiff from drilling water.			4 ft recovery
				0.0	

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-023a	**Not Measured**	**Not Measured**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS	
165		Purple-gray, ROCK (pulverized), some fine to coarse Gravel, pulverized to a silty clay powder; wet from drilling water.				165
				0.0	2 ft recovery	
				0.0	2 ft recovery	
170						170
175				0.0		175
180		Purple, BEDROCK, rock cores of purple fissile rock, broken along fractures.			9 ft recovery	180
					4 ft recovery	
185						185
				0.0		
190						190
195					End of boring at 196 ft bls, borehole grouted to surface	195

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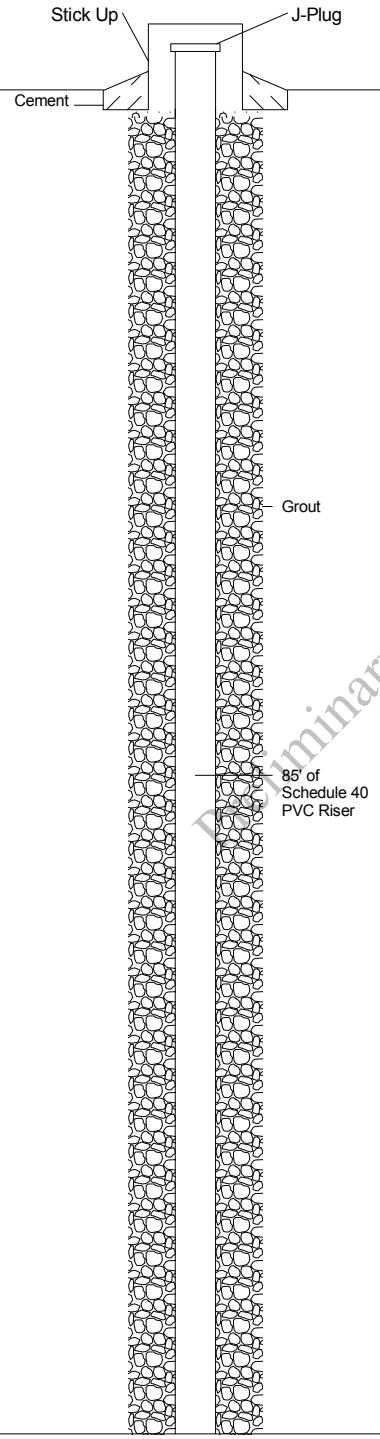
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-025a	**48.396692**	**-114.145394**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **North-West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**7/13/16-7/15/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND, little Gravel and Organics, trace silt; moist.		0.1	6 ft recovery
	Brown, fine to coarse SAND, some fine to medium Gravel, trace silt; dry.		0.1	Sample CFMW-025a-SO-0-0.5 and CFMW-025a-SO-0-0.5-Pb collected
	Brown, fine to coarse SAND and fine GRAVEL, trace medium to coarse gravel; dry.		0.2	
5			0.0	Sample CFMW-025a-SO-0.5-2 collected
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble; dry.		0.0	10 ft recovery
	Brown, fine to coarse SAND, some fine to medium Gravel, trace cobble; moist.			
10	Brown, fine to coarse SAND and fine to medium GRAVEL, some Cobble; moist.		0.0	
15				Sample CFMW-025a-SO-10-12 collected
	Brown, fine to coarse SAND, some fine to medium Gravel, trace cobble; moist.		0.1	8 ft recovery
20	Brown, fine to coarse SAND, little fine to medium Gravel; moist		0.2	
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.		0.1	
25			0.2	
	Brown, fine to coarse SAND, little fine to medium Gravel; moist.		0.2	7 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.		0.1	
30	Brown, fine to medium SAND; moist to wet.			
35			0.1	
	Gray to brown, SILT, some fine Sand, little Clay and Gravel; wet (medium stiff).			Sample CFMW-025a-SO-35-40 collected 8 ft recovery
40			0.0	
	Gray to brown, fine to coarse SAND and SILT, little Clay and fine to medium Gravel, trace cobble; moist (stiff).		0.0	
45				
	Gray to brown, SILT, some fine to medium Sand and Clay, little fine to medium Gravel; dry (very stiff).			5 ft recovery
50			0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-025a	**48.396692**	**-114.145394**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
					7" Conductor casing set to 50 ft bls
		Gray to brown, SILT, some low plasticity Clay, little fine to coarse Sand and dine to medium Gravel, trace boulder and cobble; moist (stiff).			5 ft recovery
55				0.0	
		Gray to brown, SILT, some low plasticity Clay and fine to coarse Sand, little fine to medium Gravel, trace boudler and cobble; dry (stiff).			9 ft recovery
60				0.0	
65					
					7 ft recovery
70				0.0	
					5 ft recovery
75				0.0	
		Brown, SILT, some low plasticity Clay and fine to coarse Sand, little fine to medium Gravel; moist (stiff).		0.0	14 ft recovery
80					
		Orange-brown to tan, fine to coarse SAND and SILT, some fine to medium Gravel, trace clay; wet (medium stiff).			
85					
90				0.0	
		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, trace clay; wet (medium dense).			4 ft recovery
				0.0	
95					16 ft recovery
100				0.0	
105					

Grout

85' of Schedule 40 PVC Riser

Bentonite Plug

#2 Sand

10' of 20-Slot Schedule 40 PVC Screen

Well Plug

Bentonite

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-025a	**48.396692**	**-114.145394**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110	Bentonite		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, trace clay; wet (medium dense). *(continued)*			15 ft recovery
115						
120					0.0	
125						
130			Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, little low plasticity Clay; wet (dense).		0.0	11 ft recovery
135						
140						15 ft recovery
145	Grout				0.0	
150						
155					0.0	14 ft recovery
160						

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-025a	**48.396692**	**-114.145394**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165					165
		Orange-brown to tan, fine to coarse SAND, some Silt and fine to medium Gravel, little low plasticity Clay; wet (medium dense).			15 ft recovery
170					170
175	Grout				175
180				0.0	180
					15 ft recovery
185					185
190				0.0	190
195					195
				0.0	12 ft recovery
200		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, some Boulder, little low plasticity Clay; moist (dense).		0.0	200
205		Brown to dark orange, fine to coarse SAND and SILT, some fine to coarse Gravel and Cobble, little low plasticity Clay; moist (stiff).		0.0	205
		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, trace cobble; moist to wet (medium dense).			16 ft recovery
210					210
215					215
220				0.0	220

Preliminary Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-025a	**48.396692**	**-114.145394**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, trace cobble; moist to wet (medium dense). *(continued)*			
225		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, little low plasticity Clay; moist to wet (dense).			17 ft recovery
230					
	Grout				
235				0.0	
240					
					14 ft recovery
245					
250				0.0	
255					
		Purple, BOULDER.			4 ft recovery
		Brown-tan to dark orange, SAND and SILT, some low plasticity Clay and fine Gravel; dry (very stiff).		0.0	
260					11 ft recovery
				0.0	
265		Gray to brown, SAND and SILT, some low plasticity Clay and fine to coarse Gravel, trace cobble; moist (stiff).			
				0.0	
270					
		Brown to dark orange, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay; moist (stiff).			11 ft recovery
275				0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-025a	**48.396692**	**-114.145394**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280		Brown to dark orange, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay; moist (stiff). *(continued)*			280
		Brown to dark orange, SAND and SILT, some low plasticity Clay and fine to coarse Gravel, trace cobble; dry (very stiff).			7.5 ft recovery
285	Grout			0.0	285
					5 ft recovery
290				0.0	290
295					295
300					End of boring at 300 ft bls 300

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WELL CONSTRUCTION LOG

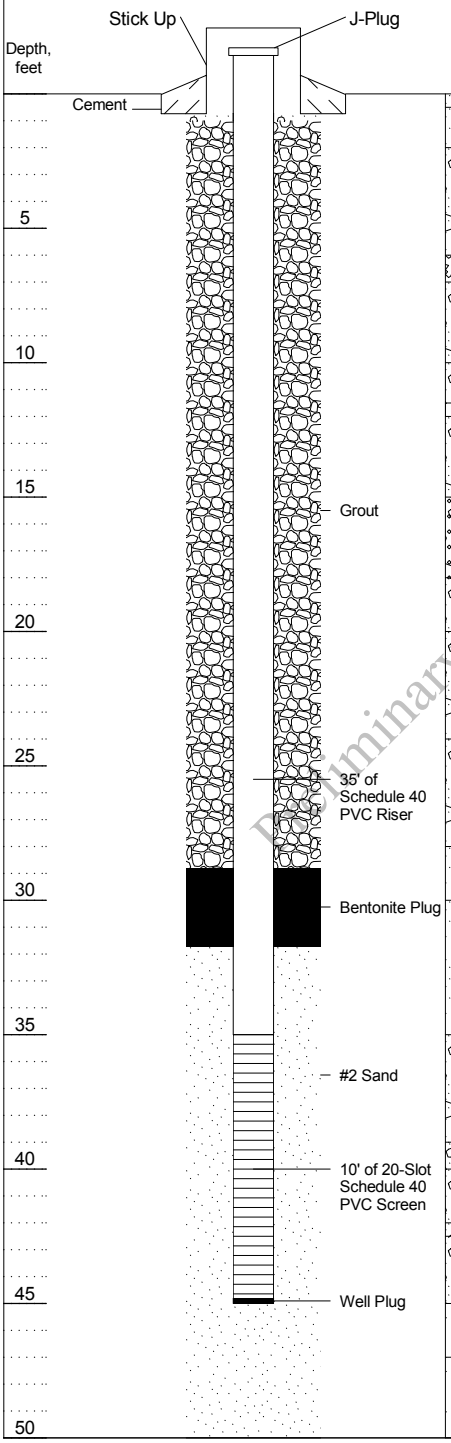
WELL NO.	LATITUDE	LONGITUDE
CFMW-026	**48.396692**	**-114.144125**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **North-West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/14/16-6/15/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**

SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine SAND, some Organics and Silt, trace gravel; moist.		0.1	4 ft recovery
	Dark brown, SAND, some Silt, little Gravel; moist (loose).		0.1	Sample CFMW-026-SO-0-0.5 collected
	Brown, fine to medium SAND, some medium to coarse Gravel, little Cobble, trace silt; moist.		0.1	Sample CFMW-026-SO-0.5-2 collected
5			0.2	5 ft recovery
	Brown, fine to coarse GRAVEL and non-plastic CLAY, little Sand and Cobble; moist.		0.1	
	Brown, medium to coarse SAND, some coarse Gravel and Cobble, trace silt; moist.		0.7	
10				
	Brown, medium SAND and medium GRAVEL, little Cobble; moist.		0.3	5 ft recovery
	Brown to gray, coarse GRAVEL, some Cobble, little medium Sand; moist.		0.3	Sample CFMW-026-SO-10-12 collected
	Brown to gray, fine to medium SAND, some medium to coarse Gravel, few Cobble, little Crushed rock, trace silt; moist.		0.5	
15				
	Brown, medium to coarse SAND, little Gravel and Cobble, trace silt; moist.		0.7	5 ft recovery
	Brown to gray, fine to medium SAND, little Gravel, few Cobble, trace silt; moist.		0.9	
20				
	Brown, fine to medium SAND, some coarse Gravel; moist.		0.3	5 ft recovery
25	Gray, fine SAND, little Gravel and Silt, trace cobble; dry.		0.7	
			0.3	5 ft recovery
	Brown, medium SAND, trace gravel and cobble; moist to wet.		0.4	
30				
	Brown, medium SAND, trace gravel and cobble; wet.		0.9	1.5 ft recovery
35				
	Brown, fine to medium SAND, some Gravel, little Cobble, trace silt; wet.		0.2	5 ft recovery
40	Brown, fine to medium GRAVEL, some medium Sand, trace silt; wet.		0.9	
	Brown, medium SAND, little Gravel and Silt; wet.		0.3	5 ft recovery
	Brown, fine SAND, little Gravel and Silt; wet.		0.3	
	Brown, medium SAND, little Gravel, trace cobble and silt; wet (loose).		0.5	
45				
	Brown, SILT, some fine to medium Sand and Gravel, trace cobble; moist (soft).		0.3	5 ft recovery
	Brown, SAND and SILT, some medium to coarse Gravel, little Crushed rock and Clay, trace cobble; dry (stiff).		0.7	
50				End of boring at 50 ft bls

Preliminary - Under Internal MEQ Review

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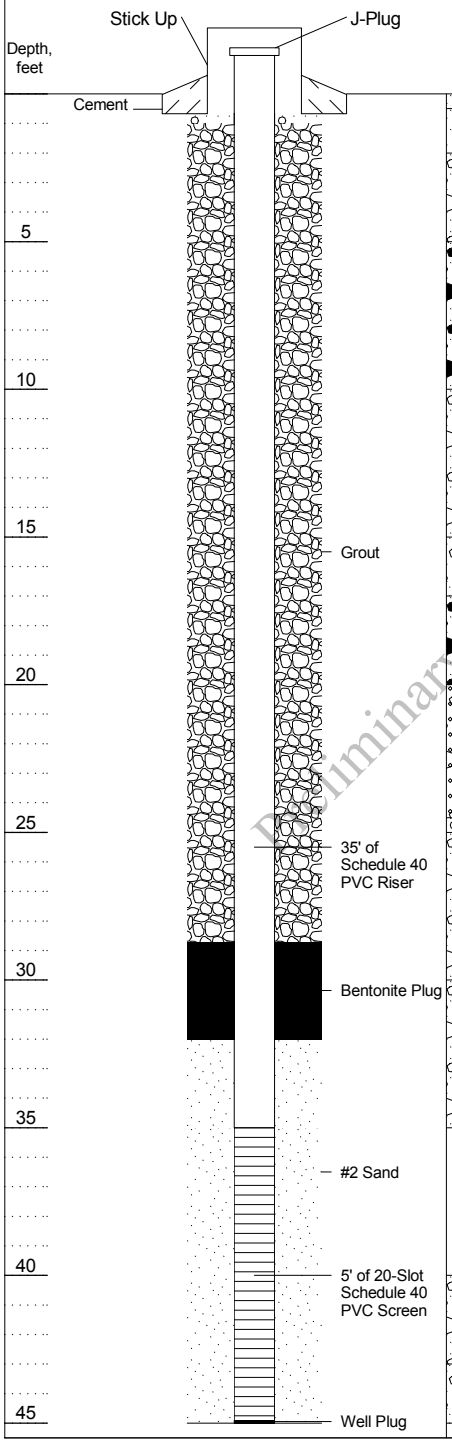
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-027	**48.396987**	**-114.14026**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Overflow Ditch**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/30/16-7/1/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Black, coarse SAND, some Silt, trace gravel; dry to moist (loose).	2.1	5 ft recovery
	Black to dark brown, fine SAND, some Silt, trace gravel and roots; moist (loose).	1.8	Sample CFMW-027-SO-0-0.5 and CFMW-027-SO-0-0.5-Pb collected
	Light brown to gray, medium to coarse GRAVEL, some fine to medium Sand, trace cobble and crushed rock; moist.	0.2	Sample CFMW-027-SO-0.5-2 collected
5	Brown to light gray, fine to coarse GRAVEL, some fine to medium Sand, little Crushed rock, trace silt and cobble; moist.	0.8	5 ft recovery
10	Light brown, medium GRAVEL, some fine Sand, little Clay and Cobble; moist (dense).	0.5	5 ft recovery
		0.5	Sample CFMW-027-SO-10-12 collected
15	Brown to dark gray, fine SAND, some fine to coarse Gravel, trace silt and cobble; dry to moist (loose).	0.5	5 ft recovery
	Light brown, fine to coarse GRAVEL, some fine to coarse Sand, little Clay; moist to wet (dense).	0.9	
20	Brown to dark gray, fine to coarse SAND, some medium to coarse Gravel, trace silt and cobble; moist.	1.0	5 ft recovery
25	Light brown, COBBLE, some fine to medium Gravel, little fine Sand; wet.	0.1	1.5 ft recovery
	Light brown, medium to coarse GRAVEL, some fine to medium Sand and Cobble, trace silt; wet.	0.0	
30	Light brown, fine to medium GRAVEL, little fine Sand and Cobble, trace silt; wet (loose).	0.4	4 ft recovery
35	No recovery.		No recovery
40	Light brown, medium to coarse GRAVEL, some fine to coarse Sand, little Cobble; wet (medium dense).	0.4	5 ft recovery
	Brown to gray, medium to coarse SAND, little fine Gravel, trace silt; wet (loose).	0.2	
45			End of boring at 45 ft bls

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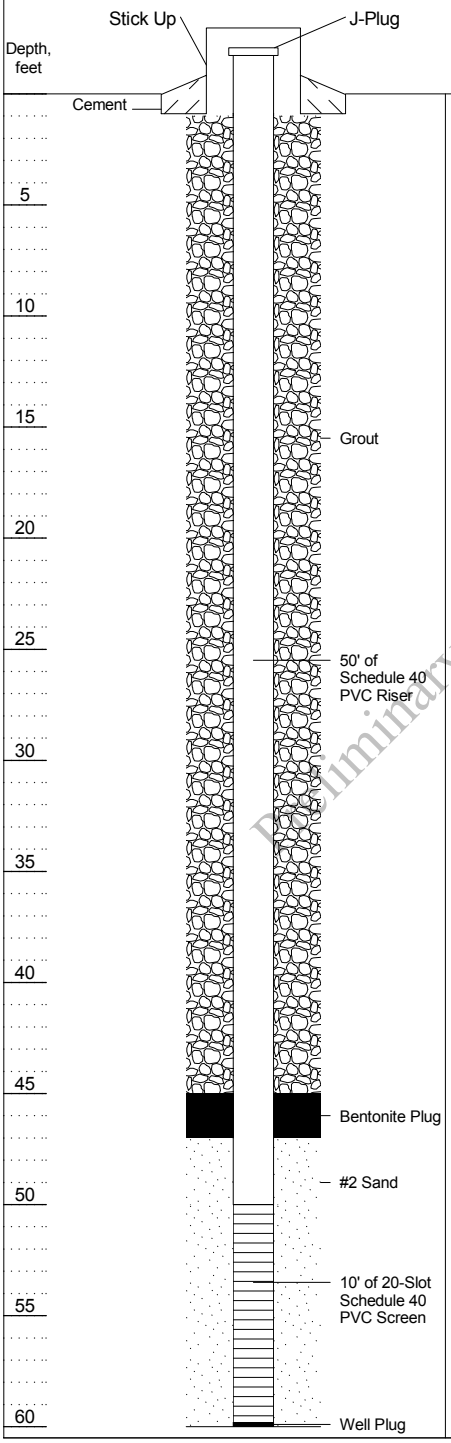
WELL CONSTRUCTION LOG

WELL NO. **CFMW-028**	LATITUDE **48.396361**	LONGITUDE **-114.136594**		
PROJECT NO./NAME **2476.0001Y002 / CFAC RI/FS Phase 1**		LOCATION **2000 Aluminum Drive Columbia Falls, Montana**		
APPROVED BY **A. Muscietta**	LOGGED BY **A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER **Cascade Drilling / Carlos Anguiano**		GEOGRAPHIC AREA **North-East Percolation Pond**		
DRILL BIT DIAMETER/TYPE **6-in. / Sonic Bit**	BOREHOLE DIAMETER **6-inches**	DRILLING EQUIPMENT/METHOD **Truck Mounted / Rotosonic**	SAMPLING METHOD **Continuous Core**	START-FINISH DATE **7/11/16-7/11/16**
CASING MAT./DIA. **SCH 40 PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-028a for lithology.			
5					5
10					10
15					15
20					20
25					25
30					30
35					35
40					40
45					45
50					50
55					55
60					60

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WELL CONSTRUCTION LOG

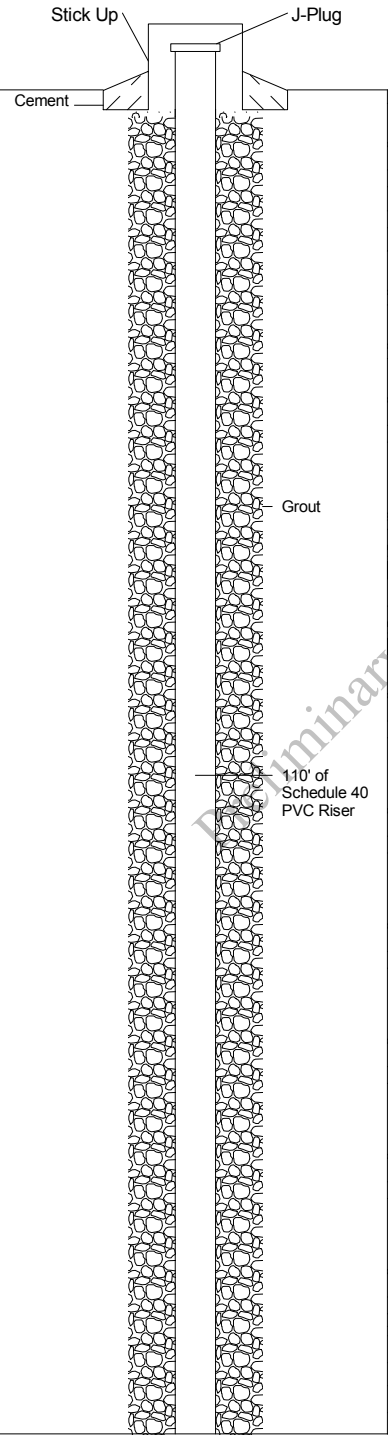
WELL NO.	LATITUDE	LONGITUDE
CFMW-028a	**48.39636**	**-114.13656**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **North-East Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**6/30/16-7/12/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**

SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some Cobble, little Silt; moist.	0.0	6 ft recovery Sample CFMW-028a-SO-0-0.5 and CFMW-028a-SO-0-0.5-Pb collected
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble; moist.	0.0	
5	Black, SILT; moist.	0.0	Sample CFMW-028a-SO-0.5-2 collected
	Dark brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.	0.0	8 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.	0.0	
10	Brown, fine to coarse SAND and fine to coarse GRAVEL, trace cobble; moist.	0.0	Sample CFMW-028a-SO-10-12 collected
15			
	Brown, fine to coarse GRAVEL, some fine to coarse SAND, trace silt and cobble; moist (loose).	0.0	8 ft recovery
20			
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.	0.0	
25			
			7 ft recovery
30		0.0	
35			
			8 ft recovery
40		0.0	
45			
	Brown, fine to medium SAND; wet (loose).		10 ft recovery
50		0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-028a	**48.39636**	**-114.13656**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some fine to medium Gravel; wet (loose).		0.0	
	Brown, fine SAND; wet (loose).		0.0	Sample CFMW-028a-SO-48-53 collected
55				
	Brown, fine to medium SAND, trace silt; wet (loose).			8 ft recovery
60			0.0	
65				
				8 ft recovery
			0.0	
70				
	Brown, fine SAND, some Silt; wet (loose).		0.0	
75	Brown, fine to coarse SAND, some Silt, little fine Gravel; wet (medium dense).		0.0	
	Brown, fine to medium SAND; wet (loose).			10 ft recovery
80			0.0	
	Brown, fine SAND, some Silt; wet (medium dense).			
85			0.0	
	Brown, fine to medium SAND; wet (loose).			14 ft recovery
90			0.0	
	Brown, fine SAND, some Silt; wet (medium dense).			
95				
			0.0	
100				
	Brown to gray, fine SAND, some Silt; wet (medium dense).			15 ft recovery
105				

Grout

110' of Schedule 40 PVC Riser

Bentonite Plug

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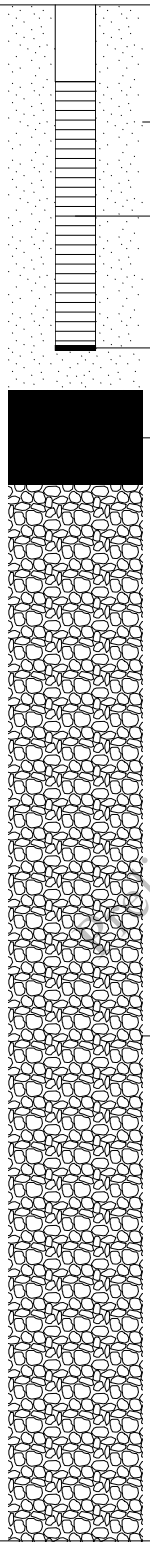
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-028a	**48.39636**	**-114.13656**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Brown to gray, fine SAND, some Silt; wet (medium dense). *(continued)*		0.0	
115					15 ft recovery
120		Gray-brown, fine to medium SAND, some Silt, little fine to medium Gravel; wet (medium dense).		0.0	
125		Orange-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (stiff).		0.0	
130					15 ft recovery
135		Purple to gray, fine SAND and SILT, some Clay and fine to medium Gravel; dry (very dense).		0.0	7" Conductor casing set to 135 ft bls
140		Tan, SILT and low plasticity CLAY, trace fine sand; moist to dry (very stiff).		0.0	
145					14 ft recovery
150				0.0	
155					
160					15 ft recovery



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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-028a	**48.39636**	**-114.13656**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		Tan, SILT and low plasticity CLAY, trace fine sand; moist to dry (very stiff). *(continued)*		0.0	
		Orange-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (stiff).		0.0	
170		Brown-dark orange, fine to coarse SAND, some fine to coarse Gravel and Silt; wet (loose to medium dense).		0.0	
175	Grout	Olive brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; dry to moist (stiff).			7 ft recovery
180		Gray-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble; wet (loose to medium dense).		0.0	
185		Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (stiff).		0.0	3 ft recovery
190		Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; wet-moist (stiff).			15 ft recovery
195		Yellow-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace clay; wet (medium dense).			
200		Yellow-brown, medium to coarse SAND, some Gravel and Silt; wet (loose).		0.0	15 ft recovery
205		Olive brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (stiff).			
210				0.0	
215		Brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist-wet (stiff).			15 ft recovery
220					

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-028a	**48.39636**	**-114.13656**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist-wet (stiff). *(continued)*			
230				0.0	
	Grout				
235					
240		Brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (stiff).		0.0	15 ft recovery
		BOULDER.			
245		Brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (stiff).			
250				0.0	7 ft recovery
255					
260		Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (very stiff).		0.0	7 ft recovery
265		Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist-wet (very stiff).			10 ft recovery
270				0.0	
275		Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (very stiff).			14 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-028a	**48.39636**	**-114.13656**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280			Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (very stiff). *(continued)*		0.0	
285	Grout					
			Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist-wet (very stiff).			8 ft recovery
290					0.0	
295			Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; moist (very stiff).		0.0	6 ft recovery
300			Olive-brown, fine to coarse SAND and SILT, some fine to medium Gravel, trace cobble and clay; wet (very stiff).			End of boring at 300 ft bls

Preliminary - Under EPA and MDEQ Review

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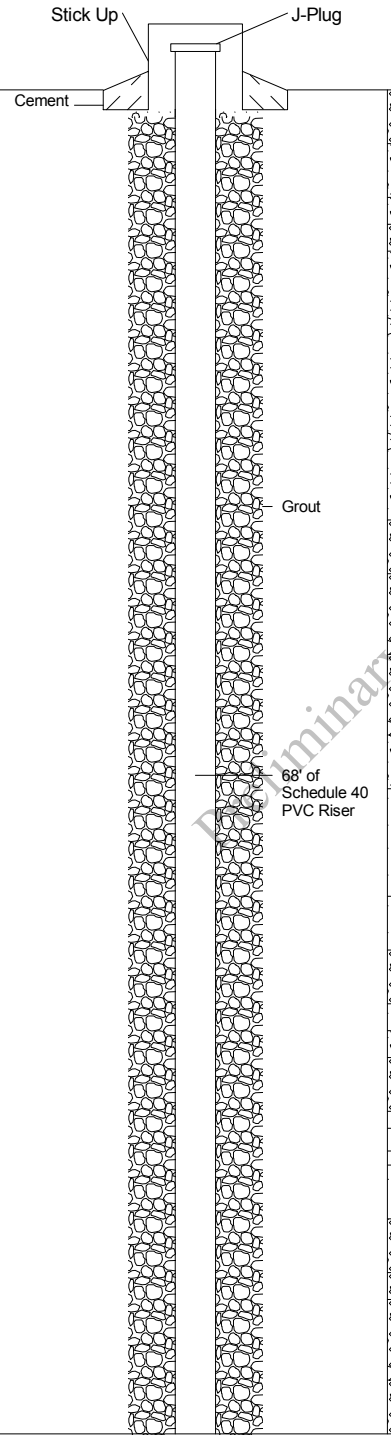
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-029	**48.396805**	**-114.134893**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **North-East Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**5/18/16-5/19/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND, some coarse Gravel; dry.		0.3	6 ft recovery Sample CFMW-029-SO-0-0.5 collected
	Brown, medium to coarse SAND, some coarse Gravel; moist.		0.7	Sample CFMW-029-SO-0.5-2 collected
5	Brown, coarse SAND, some fine to medium Sand and Gravel; moist.		1.8	5
	Brown to light gray, fine to coarse SAND, some Gravel (angular), trace silt; dry.		1.7	10 ft recovery
	Brown, medium to coarse SAND, some fine to coarse Gravel, trace silt; dry.		1.2	
10			0.8	10
			1.2	Sample CFMW-029-SO-10-12 collected
15			1.4	15
	Brown, fine to coarse SAND, little Gravel; dry to moist.		1.3	10 ft recovery
20	Dark brown, fine to coarse SAND and GRAVEL; moist.		0.9	20
	Tan-brown, fine to coarse SAND and GRAVEL, trace silt; wet.		1.5	
25	Brown, medium SAND, little coarse Gravel; moist.		1.3	25
	Brown, fine to medium SAND; moist.		0.5	9 ft recovery
30			0.5	30
	Brown, medium to coarse SAND, some fine Sand; moist		0.5	
	Brown to light gray, fine to coarse SAND, some fine to medium Gravel; dry.		0.5	
35	Brown, fine to medium SAND; moist.		0.9	35
	Brown to light gray, fine to medium SAND, some fine to medium Gravel; dry.		0.9	8 ft recovery
	Brown, fine to coarse SAND, some fine Gravel; dry.		3.7	
40	Brown, SILT, trace fine sand and fine gravel; dry.		5.1	40
	Brown, SILT, little fine Sand, trace cobble; dry.		7.7	
	Brown to light gray, fine to coarse SAND, some fine to coarse Gravel (angular), little Cobble (crushed); dry.		0.6	
45	Brown, fine to coarse SAND, some coarse Gravel, little cobble; dry to moist.		2.1	8 ft recovery 45
	Brown, fine to coarse SAND, some fine Gravel, trace silt; dry.		1.9	
50	Brown, fine to coarse SAND and GRAVEL (angular), trace cobble and silt; dry.		2.4	50

Preliminary Under EPA and NDEQ Review

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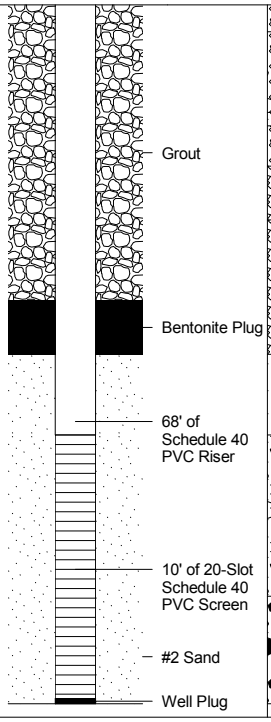
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-029	**48.396805**	**-114.134893**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine SAND and GRAVEL (angular), some Cobble (crushed), trace silt; dry.		0.5	
55	Brown, coarse SAND and GRAVEL, trace cobble; moist.		0.5	55
	Brown to light gray, fine to coarse SAND, some Gravel (angular) and Cobble (crushed), trace silt; dry.		0.3	5 ft recovery
	Brown, fine to coarse GRAVEL, some Silt, trace clay; wet.		0.1	
60	Brown, fine to coarse GRAVEL, some Silt, trace cobble; wet.		0.7	60
	Brown, fine SAND, some Silt and fine to coarse Gravel, trace cobble; wet.			4 ft recovery
65			0.7	65
	Brown, coarse SAND and GRAVEL, some Cobble, trace silt and fine sand; wet.			
70			0.3	70
	Brown, fine to coarse GRAVEL, some coarse Sand, trace silt; wet.			
75			0.0	75
				End of boring at 76 ft bls



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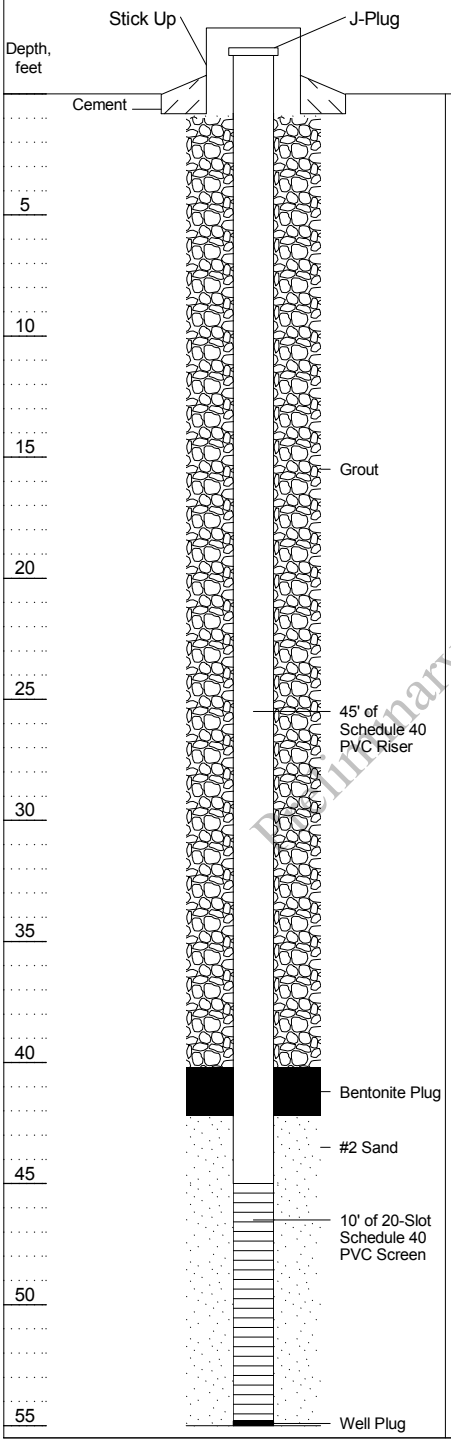
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-032	**48.395893**	**-114.132747**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Raw Materials Loading**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**8/11/16-8/11/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-032a for lithology.			
5					5
10					10
15					15
20					20
25					25
30					30
35					35
40					40
45					45
50					50
55					55

Preliminary - Under EPA and MDEQ Review

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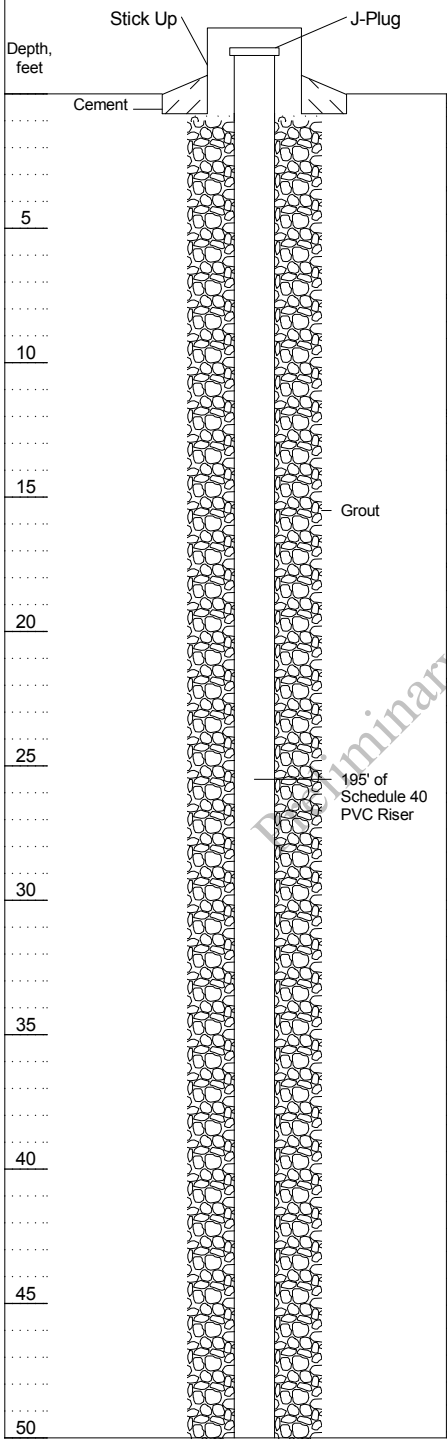
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-032a	**48.395893**	**-114.132709**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **Raw Materials Loading**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**8/8/16-8/11/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, some Silt and Organics; dry.		0.0	6 ft recovery
	Tan, fine to medium SAND, some Silt, little fine to medium Gravel, trace coarse gravel; dry.		0.0	Sample CFMW-032a-SO-0-0.5 and CFMW-032a-SO-0-0.5-Pb collected
5	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Silt; dry.		0.0	Sample CFMW-032a-SO-0.5-2 collected
	Brown to dark orange, fine to coarse SAND, little fine to medium Gravel, trace cobble; dry.		0.2	10 ft recovery
10				
	Brown, fine to medium SAND and fine to medium GRAVEL, some Silt; moist.		0.1	
15	Light gray, fine to coarse SAND, little fine to medium Gravel; dry.		0.4	
	Brown to light gray, fine to coarse SAND and fine to coase GRAVEL, little Silt and Cobble (pulverized); dry.		0.0	10 ft recovery
20				
25				
	Brown to tan, fine SAND, some Silt; moist.		0.0	10 ft recovery
30				
	Brown to tan, fine SAND, some Silt, little fine to medium Gravel; moist.		0.0	
35	Brown to tan, fine SAND and SILT, little medium to coarse Sand, trace fine to medium gravel and clay; moist to wet (soft).		0.0	
			0.0	7 ft recovery
40	Brown to tan, fine SAND and SILT, some high plasticity Clay and medium to coarse SAND, trace fine gravel; wet.		0.0	
45				Sample CFMW-032a-SO-43-48 collected
50				

Preliminary Data - SFA and MFEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-032a	**48.395893**	**-114.132709**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
55		Brown to tan, SILT, some high plastiticy Clay and fine Sand; wet (soft).		0.0	10 ft recovery
60		BOULDER.		0.0	
65	Grout	Brown, fine to coarse SAND; wet.		0.0	10 ft recovery
70		Light brown to light gray, fine to coarse SAND and SILT, some high plasticity Clay and fine Gravel, trace medium to coarse gravel; wet (stiff).		0.0	10 ft recovery
75	195' of Schedule 40 PVC Riser	Dark orange to light brown-gray, SILT, some fine Sand, high plasticity Clay and fine to medium Gravel; moist (stiff).		0.0	
80		Gray, fine to coarse SAND, some fine to coarse Gravel, trace silt; moist (loose).		0.0	14 ft recovery
85		Orange to red-brown, SILT and low plasticity CLAY, some fine Sand, little fine Gravel, trace medium to coarse Sand and medium to coarse Gravel; moist to dry (very stiff).		0.0	
90					
95		Orange to red-brown, SILT and CLAY, some fine Sand and fine Gravel, little medium to coarse Sand and medium to coarse Gravel; moist (very stiff).		0.0	11 ft recovery
100					
105					7" Conductor casing set to 103 ft bls
					9 ft recovery

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-032a	**48.395893**	**-114.132709**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Orange to red-brown, SILT and CLAY, some fine to coarse Sand, little fine Gravel, trace medium to coarse gravel; moist (very stiff). *(continued)*		0.0	
115		Tan to orange, SILT and CLAY, some fine to coarse Sand, little fine Gravel; moist (very stiff).			11 ft recovery
120				0.0	
125					
	195' of Schedule 40 PVC Riser	Orange-red to brown-tan, SILT and CLAY, some fine to coarse Sand, little fine Gravel; moist (very stiff).			15 ft recovery
130				0.0	
135					
140					
					15 ft recovery
145	Grout				
150				0.0	
155					
					15 ft recovery
160				0.0	

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-032a	**48.395893**	**-114.132709**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		Orange-red to brown-tan, SILT and CLAY, some fine to coarse Sand, little fine Gravel; moist (very stiff). *(continued)*			
170	195' of Schedule 40 PVC Riser				15 ft recovery
175	Grout				
180				0.0	
185		Orange-red to brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel; moist (very stiff).			15 ft recovery
190	Bentonite Plug			0.0	
195	#2 Sand	Orange-red to brown, fine to coarse SAND, some fine to medium Gravel and Silt, trace clay; wet (medium dense).			
200	10' of 20-Slot Schedule 40 PVC Screen			0.0	15 ft recovery
205	Well Plug	Orange-red to brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel; moist to wet (stiff).		0.0	
210	Bentonite			0.0	
215	Grout	Orange-red to brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel, trace boulder; moist (stiff).			10 ft recovery
220				0.0	

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-032a	**48.395893**	**-114.132709**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Orange-red to brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel, trace boulder; moist (stiff). *(continued)*			
230		Orange-red to brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel; moist (stiff).		0.0	15 ft recovery
235	Grout				
240					
245		Orange-tan, SILT and CLAY, some fine to coarse Sand, trace fine to medium gravel; moist (very stiff).		0.0	10 ft recovery
250		Red-purple to brown, SILT and CLAY, little fine to coarse Sand; moist (very stiff).		0.0	
255				0.0	9 ft recovery
260		Orange-tan to red-brown, SILT and CLAY, some fine to coarse Sand, trace fine to medium gravel; dry (very stiff).		0.0	
265		Brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel, trace cobble; moist (very stiff).		0.0	15 ft recovery
270					
275		Brown, SILT and CLAY, some fine to coarse Sand and fine to coarse Gravel, trace cobble; dry (very stiff).		0.0	7 ft recovery
				0.0	

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-032a	**48.395893**	**-114.132709**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280		Brown, SILTY CLAY and fine to medium GRAVEL, some fine to coarse Sand, trace cobble; dry (stiff).		0.0	8 ft recovery
285	Grout			0.0	
290					10 ft recovery
295				0.0	
300					End of boring at 300 ft bls

Preliminary - Under EPA and MDEQ Review

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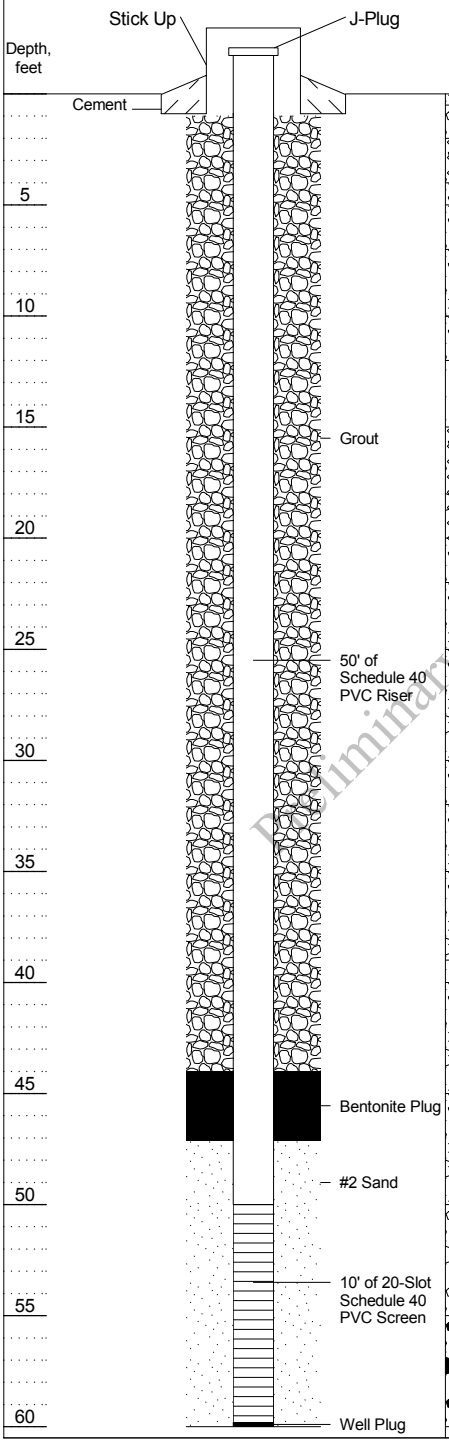
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-033	**48.395093**	**-114.139094**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**7/1/16-7/2/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Light to dark brown, fine SAND, little fine Gravel, trace silt; moist (loose).		0.1	4 ft recovery
	Dark brown to gray, fine to medium GRAVEL, some fine to medium Sand, little Silt and Cobble; moist.		0.4	Sample CFMW-033-SO-0-0.5 and CFMW-033-SO-0-0.5-Pb collected
5	Brown to gray, fine to coarse SAND, some fine to medium Gravel, little Silt and Cobble; moist.		0.1	Sample CFMW-033-SO-0.5-2 collected
	Gray to brown, fine SAND, little fine to medium Gravel and Cobble, trace silt and crushed rock; dry to moist (loose).		0.1	5 ft recovery
10	Brown to orange, fine to medium SAND, some medium to coarse Gravel, trace cobble and silt; moist (medium dense).		0.1	5 ft recovery
	Brown to gray, fine to medium SAND, some fine to medium Gravel, little Crushed rock, trace cobble; moist (loose).		0.3	Sample CFMW-033-SO-10-12 collected
15	Brown, medium SAND, some fine to coarse Gravel, little Cobble, trace crushed rock and silt; dry to moist.		1	5 ft recovery
	Brown, fine SAND, trace medium gravel; moist (loose).		0.6	5 ft recovery
20	Brown, fine to coarse SAND, some fine to coarse Gravel, trace crushed rock and silt; moist (loose).		0.9	5 ft recovery
	Brown to gray, fine SAND, little fine to medium Gravel, trace crushed rock and cobble; dry (loose).		0.7	5 ft recovery
25	Brown to red, fine to medium SAND, some fine to coarse Gravel, little Cobble, trace crushed rock; dry to moist (loose).		0.2	5 ft recovery
	Brown, fine to medium SAND, some fine to coarse Gravel, little Cobble, trace crushed rock; moist (loose).		0.4	5 ft recovery
30	Brown, fine to medium SAND, some Gravel, little Cobble; moist (loose).		0.7	5 ft recovery
	Brown to light gray, medium to coarse SAND, some fine to coarse Gravel, little Cobble, trace crushed rock and silt; moist (loose).		1.2	5 ft recovery
35	Brown, fine to medium SAND, some fine to coarse Gravel, trace cobble; moist (loose).		0.1	0.5 ft recovery
	Brown to gray, fine SAND, some Silt, little Crushed rock and fine Gravel; dry to moist.		0.3	
	Light brown, coarse SAND, some fine Gravel, little Cobble; wet (loose).			
40	Brown, medium to coarse SAND, some fine to medium Gravel, little Cobble; wet (loose).			3 ft recovery
	Brown, fine to medium GRAVEL, some fine to coarse SAND, trace cobble and silt; wet (loose).		0.2	4 ft recovery
45	Light brown, fine to coarse GRAVEL, some fine to coarse SAND, little Cobble; wet (loose).		0.8	3 ft recovery
			0.4	
50			0.2	End of boring at 60 ft bls
55				
60				

Preliminary Internal QA/QC Review

ROUX ASSOCIATES, INC.
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WELL CONSTRUCTION LOG

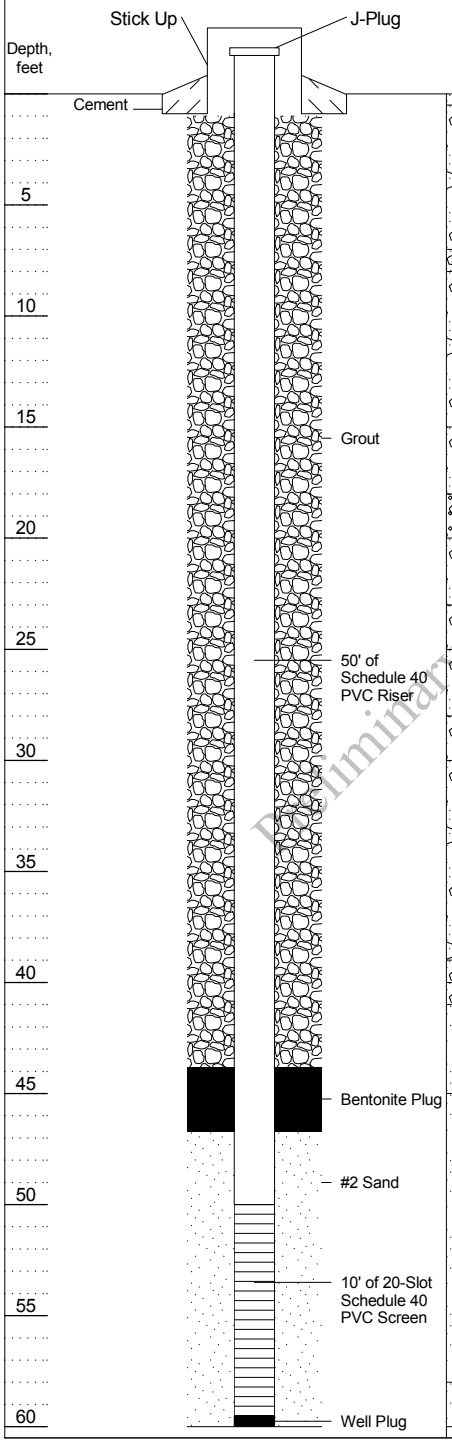
WELL NO.	LATITUDE	LONGITUDE
CFMW-034	**48.395158**	**-114.135246**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **Fueling Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**5/31/16-6/1/16**

CASING MAT./DIA. **SCH 40 PVC / 2-inch**

SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Black, fine to medium SAND, little Cobble and Silt, trace gravel; moist.		0.6	5 ft recovery
	Brown, fine to medium SAND, little medium Gravel, Cobble and Crushed rock; moist.			Sample CFMW-034-SO-0-0.5 collected
				Sample CFMW-034-SO-0.5-2 collected
5			0.1	5 ft recovery
	Brown, medium to coarse GRAVEL, some fine to medium Sand and Cobble, trace silt; moist to wet.		0.1	
10				
	Brown, fine SAND, little coarse Gravel, trace cobble and crushed rock; moist.		0.1	5 ft recovery
				Sample CFMW-034-SO-10-12 collected
15				
	Brown, medium to coarse SAND, some medium to coarse Gravel, trace silt and cobble; moist.		0.1	5 ft recovery
	Gray to brown, fine to medium SAND, some Gravel, little Crushed rock, trace cobble; dry.		0.1	
20				
	Brown, fine to medium SAND, some fine to coarse Gravel, little Cobble, trace silt; moist to wet.		0.5	5 ft recovery
	Brown, fine SAND, little Gravel, moist to wet.		0.1	
25				
	Brown, fine SAND, some medium Gravel, trace cobble; moist.		0.2	5 ft recovery
	Brown, fine to medium SAND, some fine to coarse Gravel, trace cobble and silt; moist to wet.			
30				
	Brown, fine to medium SAND, some medium to coarse Gravel, trace silt and cobble; moist.		0.1	5 ft recovery
35				
				5 ft recovery
40				
	Brown, fine SAND, little Gravel and Silt, trace cobble; moist to wet.		0.3	
	Brown, medium to coarse SAND, some fine to coarse Gravel, trace silt; moist to wet.		0.1	5 ft recovery
			0.1	
45	Brown, fine to medium SAND; wet.			
	Brown, fine to medium SAND, trace gravel; wet.			5 ft recovery
			0.3	
50				
				5 ft recovery
			0.2	
55				
				5 ft recovery
			0.1	
	Brown, fine SAND; wet.			
60			0.1	End of boring at 60 ft bls

Preliminary - Under EPA and MDEQ Review

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WELL CONSTRUCTION LOG

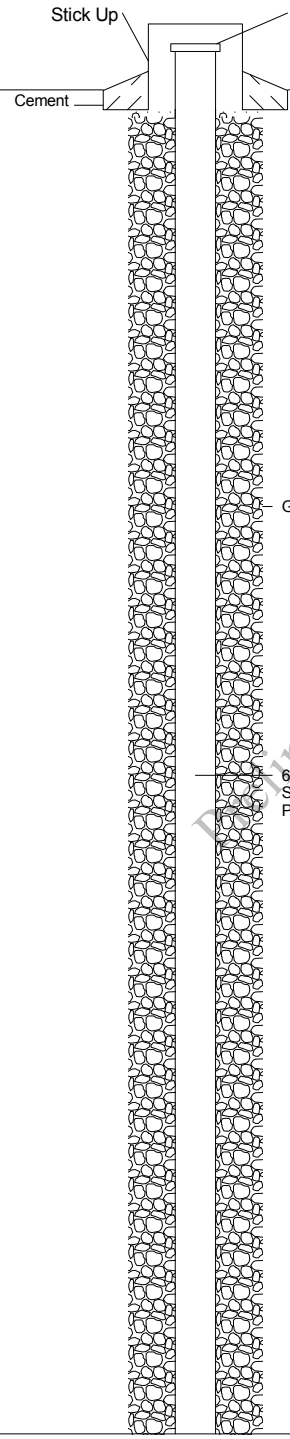
WELL NO.	LATITUDE	LONGITUDE
CFMW-035	**48.395298**	**-114.130701**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **Main Plant Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/1/16-6/2/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**

SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, medium to coarse SAND, trace gravel and silt; moist.		0.2	5 ft recovery Sample CFMW-035-SO-0-0.5 collected
	Brown, medium to coarse SAND, little fine to coarse Gravel, trace cobble; moist.		0.2	Sample CFMW-035-SO-0.5-2 collected
5	Gray, fine to coarse SAND, little medium to coarse Gravel, little crushed Rock; dry.		0.1	Orange staining 5 ft recovery
	Brown, medium to coarse SAND, little fine to medium Gravel, trace cobble and silt; moist.		0.3	
10	Gray, fine to medium SAND, some medium to coarse Gravel and crushed Rock, trace cobble; dry.		0.1	5 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble, trace silt; moist.		0.1	Sample CFMW-035-SO-10-12 collected; orange staining
15	Brown, fine to coarse SAND and GRAVEL, trace cobble and silt; moist to wet.		0.1	5 ft recovery
	Brown to gray, fine to coarse SAND, some fine to coarse Gravel and crushed Rock, trace cobble; dry.		0.3	
20	Brown, fine to coarse SAND, some fine to medium Gravel, trace cobble and crushed rock; moist to wet.			3 ft recovery
	Light brown to gray, low plasticity CLAY, some Silt; moist to wet (soft).		0.1	
	Light brown to gray, SILT, little fine Sand and low plasticity Clay; moist to wet (soft).		0.2	
25	Light brown, SAND and SILT, some low plasticity Clay, trace gravel; moist (stiff).		0.5	2.5 ft recovery
	Light brown, fine SAND and SILT, trace clay; wet (stiff).		0.2	
30	Light brown, fine SAND and SILT, little Clay, trace gravel; wet (stiff).		0.0	4 ft recovery
	Light brown, SAND and SILT, trace clay; wet (stiff).		0.2	
35	Light brown, SAND and SILT, little Clay; wet (soft).		0.1	4 ft recovery
40	Light brown, SILT and fine SAND; wet (soft).		0.0	5 ft recovery
45	Light brown, SILT, some fine Sand, little Clay; wet (stiff).		0.0	3 ft recovery
50	Light brown, SAND and SILT; wet (soft).		0.0	

Preliminary Data for TPA and MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-035	**48.395298**	**-114.130701**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Grout	Light brown, SAND and SILT; wet (soft). *(continued)*		0.0	2.5 ft recovery
55	Bentonite Plug	Light brown, fine SAND and SILT, little Clay; wet (stiff).		0.0	2.5 ft recovery
60	#2 Sand	Light brown, SAND, some Silt; wet.		0.0 0.0	2.5 ft recovery
65	10' of 20-Slot Schedule 40 PVC Screen	Light brown, fine to medium SAND; wet.		0.0	2.5 ft recovery
70	Well Plug				End of boring at 70 ft bls

Preliminary - Under EPA and MDEQ Review

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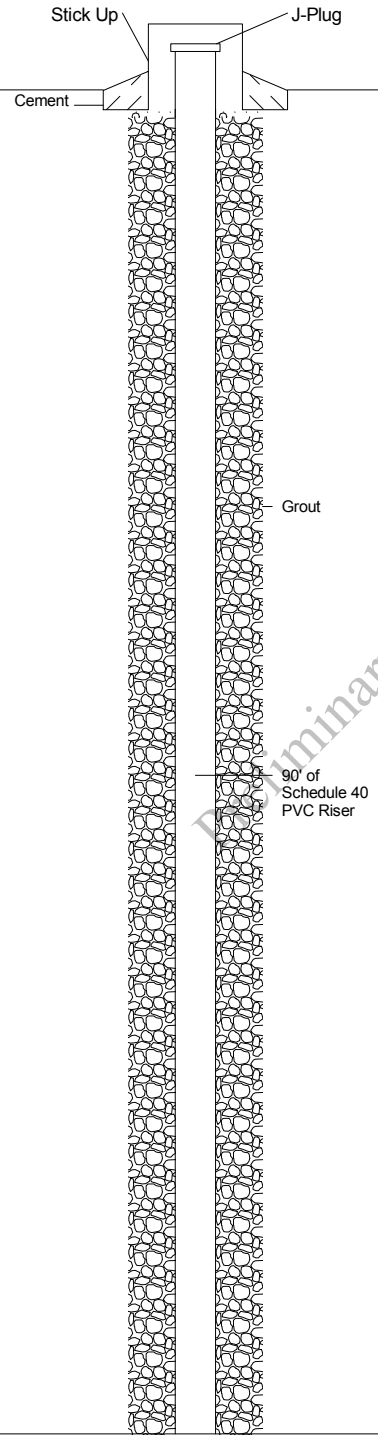
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-037	**48.391583**	**-114.130261**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/24/16-6/25/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown to gray, medium to coarse GRAVEL, some fine to medium Sand; moist.		0.2	3.5 ft recovery
			0.2	Sample CFMW-037-SO-0-0.5 and CFMW-037-SO-0-0.5-Pb collected
	Brown, fine to medium SAND, some fine to medium Gravel, trace cobble and silt; moist.		0.2	Sample CFMW-037-SO-0.5-2 collected
5				5
	Dark brown to gray, fine to medium SAND, some fine to coarse Gravel, trace silt; most.		0.5	2.5 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace cobble; moist to wet.		0.2	
10				10
	Brown to dark brown, fine to medium SAND, some fine to medium Gravel, little Silt, trace cobble; moist to wet.		0.1	5 ft recovery
	Brown, medium to coarse SAND, little fine to medium Gravel, little Silt, trace cobble; moist.		0.4	Sample CFMW-037-SO-10-12 collected
15				15
	Brown, fine to medium SAND, little fine to medium Gravel, trace cobble; moist.		0.2	5 ft recovery
	Brown to gray, fine SAND, little fine to medium Gravel and Silt, trace cobble; moist to dry.		0.8	
20				20
	Brown, fine to medium SAND, some medium to coarse Gravel, trace silt; moist.		0.1	5 ft recovery
	Brown, fine to coarse SAND, some fine to medium Gravel, little Silt, trace cobble; moist.		0.1	
25				25
	Brown, fine to medium SAND, some fine to medium Gravel, trace silt; moist.		0.3	4.5 ft recovery
	Brown, fine to medium SAND, some fine to medium Gravel, little Silt, trace cobble; moist.		0.2	
30				30
	Brown, fine SAND, little fine to medium Gravel, trace silt; dry to moist.		0.4	4 ft recovery
			0.4	
	Brown, fine to medium GRAVEL, some fine Sand, trace cobble and silt; moist.		0.4	
35				35
	Brown, fine to coarse SAND, some fine to medium Gravel, little Silt, trace cobble; moist.		0.3	5 ft recovery
	Brown, fine SAND, little fine Gravel, some Silt, trace crushed rock; moist.		0.5	
40				40
	Brown, fine SAND, some fine to medium Gravel and Silt, trace cobble; dry to moist.		0.3	5 ft recovery
	Brown to gray, fine to medium GRAVEL, some fine Sand and Silt, little Crushed rock; dry.		0.6	
45				45
	Gray, fine SAND, some Crushed rock and Silt, trace cobble; dry.		0.6	5 ft recovery
	Brown, fine SAND, some medium Gravel, little Silt, trace cobble; moist.		0.6	
	Brown, fine SAND, some fine to coarse Gravel, little Silt, trace crushed rock and		0.8	
50				50

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-037	**48.391583**	**-114.130261**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		cobble; dry.			3 ft recovery
		Gray, fine GRAVEL, some fine Sand and Crushed rock, trace silt and cobble; dry (loose).		2.0	
55					55
		Medium brown, fine to medium SAND, some Gravel; moist.		0.0	5 ft recovery
		Medium brown, fine to coarse SAND and GRAVEL, little Silt, trace cobble; moist.		0.0	
60		Medium brown, fine SAND and SILT; moist (soft).		0.0	60
		Brown to red, fine SAND and SILT; moist (stiff).		0.0	5 ft recovery
65		Light brown, fine SAND and SILT; moist (medium soft).		0.0	65
		Light brown, fine SAND, some Silt; moist (loose).		0.0	5 ft recovery
70		Light brown, fine to medium SAND; dry (loose).		0.0	70
		Medium brown, fine SAND and SILT, trace gravel; moist (stiff).		0.0	5 ft recovery
75		Medium brown, fine to medium SAND, some Silt, trace gravel; moist (loose).		0.0	75
	90' of Schedule 40 PVC Riser	Dark brown to brown, fine to coarse SAND and SILT; moist (soft).		0.0	5 ft recovery
80		Dark brown to brown, fine to coarse SAND and SILT, some coarse Sand and dark brown Organics; moist (soft).		0.0	80
		Light brown, fine SILT and SAND, some Clay; wet (soft).		0.0	2.5 ft recovery
85	Bentonite Plug				85
		Light brown, fine to medium SAND and SILT, some Clay, trace gravel; wet (soft).		0.0	2.5 ft recovery
90		Brown, coarse GRAVEL, some fine to medium Sand and Silt; wet (loose).		0.0	90
	#2 Sand	Light brown, fine SAND and SILT, some Clay, little Gravel; wet (stiff).			5 ft recovery
95	10' of 20-Slot Schedule 40 PVC Screen				95
		Light brown, SAND and GRAVEL, some Clay, trace cobble; wet (dense).		0.0	5 ft recovery
100	Well Plug	Light brown, SAND and GRAVEL, some Clay and Crushed rock, trace cobble; wet (dense).		0.0	End of boring at 100 ft bls 100

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WELL CONSTRUCTION LOG

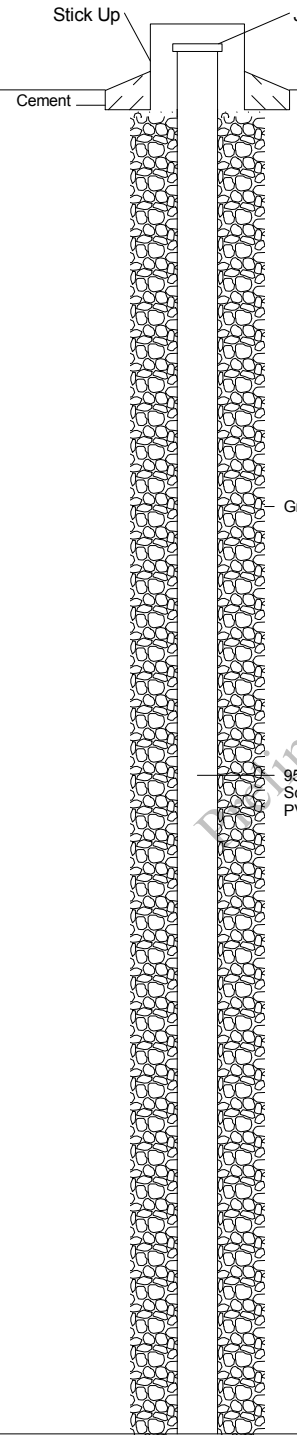
WELL NO.	LATITUDE	LONGITUDE
CFMW-038	**48.391325**	**-114.132269**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **L. Jensen**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Jeremiah Charlton	**Rectifier Yards**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/25/16-6/27/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, coarse SAND and GRAVEL; moist (loose).		0.0	3 ft recovery Sample CFMW-038-SO-0-0.5 and CFMW-038-SO-0-0.5-Pb collected Sample CFMW-038-SO-0.5-2 collected
5	COBBLE (crushed).		0.0	5 ft recovery
	Brown, coarse SAND and GRAVEL, some Silt, little Cobble; moist (loose).		0.7	
10	Brown, coarse GRAVEL (angular), some Sand and Silt, little Cobble; moist (loose).		0.7	3.5 ft recovery
	Brown, fine to coarse SAND and GRAVEL, some large Cobble, little Silt, trace crushed rock; moist (loose).		0.5	Sample CFMW-038-SO-10-12 collected
15			0.0	5 ft recovery
	Brown, coarse SAND, some Gravel, little Silt, trace cobble; moist (loose).		0.1	
20	Light brown, coarse SAND, some Gravel and Cobble, trace silt; moist (loose).			5 ft recovery
25	Light brown, fine to medium SAND, some fine to coarse Gravel, little Crushed rock, trace cobble and silt; moist (loose).		0.1	4 ft recovery
30			0.1	5 ft recovery
35	Gray to light brown, fine SAND, some fine Gravel, little Crushed rock and Silt; dry.		0.0	
	Gray, fine SAND, some fine to medium Gravel and Crushed rock, little Silt, trace cobble; dry.		0.8 1.0	5 ft recovery
40	Brown, medium to coarse SAND, some medium to coarse Gravel, trace cobble, silt and crushed rock; moist.		0.1	5 ft recovery
	Brown, COBBLE, little Silt and fine Sand, trace fine to medium gravel; moist to wet.		0.1	
45	Gray, fine SAND and fine GRAVEL, little Silt and Crushed rock; dry (loose).		0.0	3 ft recovery
	Light brown to gray, coarse GRAVEL, some fine to coarse Sand, little Silt, Cobble and Crushed rock; dry (loose).		0.1	
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-038	**48.391325**	**-114.132269**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**L. Jensen**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine SAND, trace silt and medium gravel; moist (loose).		0.2 0.1	5 ft recovery
55	Brown to gray, fine SAND, some fine to medium Gravel and Silt, little Crushed rock, trace cobble; moist.		0.1	55
	Gray, fine SAND, some fine to medium Gravel, little Crushed rock and Silt; dry (loose).			5 ft recovery
60				60
	Gray to brown, fine SAND, some Crushed rock, little fine to medium Gravel and Silt; dry.		0.4	5 ft recovery
	Brown, fine SAND, little Silt; moist.		0.4	
65	Gray, fine SAND, some Crushed rock, little fine to medium Gravel and Silt; dry (loose).		0.4	65
	Brown, fine SAND, little Silt, trace gravel; dry to moist (dense).		0.2 1.0	5 ft recovery
70	Gray to brown, fine SAND, some fine to medium Gravel, little Silt, trace crushed rock; dry (loose).		1.9	70
	Gray, fine SAND, some fine to coarse Gravel and Crushed rock, little Silt, trace cobble; dry (loose).		0.5	5 ft recovery
75				75
	Brown to gray, fine SAND, some fine Gravel, little Silt and Crushed rock, trace cobble; dry (loose).		1.0	5 ft recovery
80				80
	Light brown to gray, fine to medium SAND, some fine to medium Gravel, little Silt, trace cobble; dry (loose).		1.8	5 ft recovery
85	Brown to orange, fine SAND, some fine Gravel and Silt, trace cobble; moist to wet.		0.7	85 1.5 ft recovery
	Brown, fine to coarse SAND, trace fine gravel; wet (loose).		0.0	
90				90
	Brown, medium to coarse SAND, some fine to coarse Gravel, little Cobble, trace silt; wet (loose).		0.4	5 ft recovery
95				95
	Gray to brown, fine to coarse GRAVEL, some fine Sand, trace silt and cobble; wet (loose).		0.2	4 ft recovery
100	Brown, medium SAND, little fine Gravel and Silt; wet (dense).		0.2	100
	Brown, medium SAND, some fine to coarse Gravel, trace silt and cobble; wet (loose).		0.1	5 ft recovery
105				End of boring at 105 ft bls 105

Grout

95' of Schedule 40 PVC Riser

Bentonite Plug

#2 Sand

10' of 20-Slot Schedule 40 PVC Screen

Well Plug

Preliminary Under Corp and MDEQ Review

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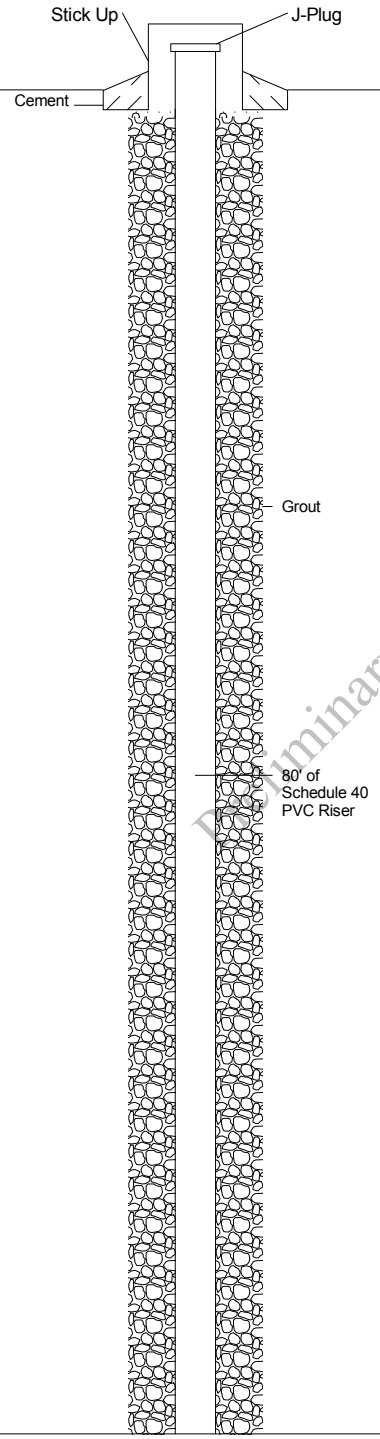
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-040	**48.391148**	**-114.136865**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/28/16-6/29/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine SAND, some fine to medium Gravel and Silt, trace cobble; moist (loose).		0.1 0.2	3.5 ft recovery Sample CFMW-040-SO-0-0.5 and CFMW-040-SO-0-0.5-Pb collected
	Brown, fine SAND, some fine to coarse Gravel, litle Silt, trace cobble; moist (dense).		0.1 0.9	Sample CFMW-040-SO-0.5-2 collected
5	Brown, fine to coarse GRAVEL, some fine to medium Sand and Cobble, little Silt; moist.		0.9	4 ft recovery
	Brown, coarse GRAVEL, some Cobble, little fine Sand, trace silt; moist to wet (loose).		0.1	
10	Brown, medium to coarse GRAVEL, some medium to coarse Sand, little Cobble, trace silt; moist to wet (loose).		0.0	5 ft recovery
	Brown, fine to medium SAND, some medium to coarse Gravel, little Silt, trace cobble; moist.		0.3	Sample CFMW-040-SO-10-12 collected
15	Brown to gray, fine to coarse GRAVEL, some fine to coarse Sand, little Silt and Cobble; moist.		0.3 0.1	4 ft recovery
	Gray, fine SAND, little fine to medium Gravel and Crushed rock, trace silt; dry (loose).		0.1 1.1	
20	Brown, fine SAND, some Silt, little fine Gravel; moist.			5 ft recovery
	Gray, fine SAND, some Crushed rock, little fine Gravel; dry.		0.5	
	Brown, fine to medium GRAVEL, some medium to coarse Sand, little Cobble and Silt; moist to wet (dense).		0.0	
25	Brown, fine to medium SAND, some medium to coarse Gravel, trace cobble; moist.			5 ft recovery
	Brown to gray-red tinted, fine to coarse GRAVEL, some fine to medium Sand, little Silt, Cobble and Crushed rock; moist (loose).		0.4	
30				5 ft recovery
			0.5	
35	Gray to light brown, fine SAND, some fine to medium Gravel and Crushed rock, trace cobble and silt; dry.			5 ft recovery
			0.2	
40	Brown, medium to coarse GRAVEL, some fine to medium Sand, little Cobble and Silt; dry to moist; dense.			5 ft recovery
			0.3	
	Gray to light brown, fine SAND, some Crushed rock, little fine to medium Gravel and Silt; dry.		1.9	
45	Brown, medium SAND, some fine to coarse Gravel, little Cobble and Silt; moist.			5 ft recovery
			0.2	
50				

Preliminary Subject to Revision / MDEQ Review

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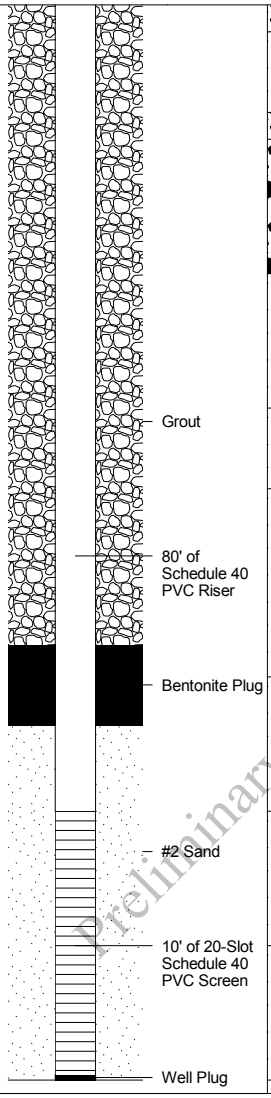
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-040	**48.391148**	**-114.136865**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Gray to brown, fine SAND, some Crushed rock, little fine Gravel and Silt; dry (loose).		0.1	5 ft recovery
	Brown, fine to medium SAND, trace gravel and cobble; moist (loose).		0.1	
55	Gray to brown, fine SAND, some fine Gravel, little Silt; dry (loose).		0.0	5 ft recovery
	Brown to gray, fine to coarse GRAVEL, some fine to coarse Sand, little Silt and Crushed rock, trace cobble; moist.		1.5	
60	Brown, fine SAND, trace silt; moist (dense).		0.8	3.5 ft recovery
65	Brown, fine SAND, little Silt, trace medium gravel and cobble; moist.		1.4	5 ft recovery
70	Brown, fine SAND, little Silt, trace gravel; moist to wet (dense).		1.0	3.5 ft recovery
75	Brown, fine SAND, trace silt; wet (loose).		0.0	5 ft recovery
80	Brown, fine SAND, trace silt; wet.		0.0	4 ft recovery
85	Brown, fine SAND; wet.		0.0	5 ft recovery
90				End of boring at 90 ft bls



Preliminary - Under EPA and MDEQ Review

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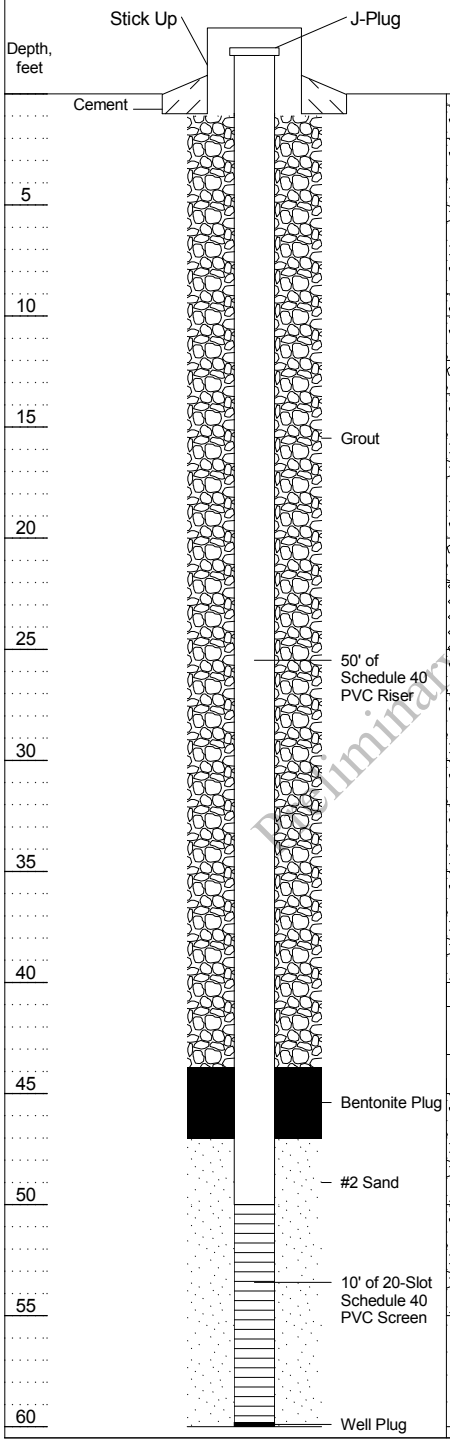
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-042	**48.391642**	**-114.138887**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/16/16-6/18/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted**	MAT. **SCH 40 PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine SAND, some Silt, trace gravel and topsoil; moist (loose).		0.0	5 ft recovery
	Brown, fine to medium SAND, some coarse Gravel, little Cobble and Silt; moist.		0.1	Sample CFMW-042-SO-0-0.5 and CFMW-042-SO-0-0.5-Pb collected
5	Brown to gray, coarse SAND, some coarse Gravel, trace cobble and crushed rock; dry to moist.		0.4	Sample CFMW-042-SO-0.5-2 collected; 5 ft recovery
			0.9	
10	Gray, fine SAND, some coarse Gravel and Crushed rock, trace cobble; dry.			5 ft recovery
	Brown to gray, fine SAND and GRAVEL, little Cobble and Crushed rock; dry.		0.6	
	Brown, medium to coarse GRAVEL, some medium to coarse Sand, little Cobble, trace silt; moist.		0.1	Sample CFMW-042-SO-10-12 collected
15			0.1	5 ft recovery
	Light brown to gray, fine SAND, some medium Gravel and Crushed rock, little Silt; dry.		0.6	
20	Brown to red, coarse GRAVEL, some fine Sand and Silt, little Cobble; moist to wet.		0.1	5 ft recovery
	Brown to gray, fine to coarse SAND, some medium to coarse Gravel, little Cobble and Crushed rock; dry to moist.		0.2	
25	Brown with red tint, medium to coarse SAND, little Gravel, trace cobble and crushed rock; moist.		0.8	5 ft recovery
30	Brown to red, medium SAND, some fine to medium Gravel, little Cobble and Crushed rock; dry to moist.		1.1	
	Brown with red tint, medium SAND, some fine to medium Gravel, trace cobble; moist.		0.2	5 ft recovery
35	Brown to red, medium SAND, some fine to medium Gravel, little Crushed rock, trace cobble; moist to wet.		0.2	
	Brown, medium SAND, some fine to medium Gravel, trace cobble; moist to wet.		3.0	5 ft recovery
40	Brown, medium to coarse GRAVEL, some Cobble, little fine to medium Sand; wet (loose).		0.2	2 ft recovery
45	Brown, medium to coarse SAND, trace gravel; wet (loose).			4 ft recovery
50	Brown, medium to coarse SAND, little medium Gravel, trace cobble; wet.		0.2	3 ft recovery
55	Brown, fine to medium SAND; wet.		0.1	5 ft recovery
60				End of boring at 60 ft bls

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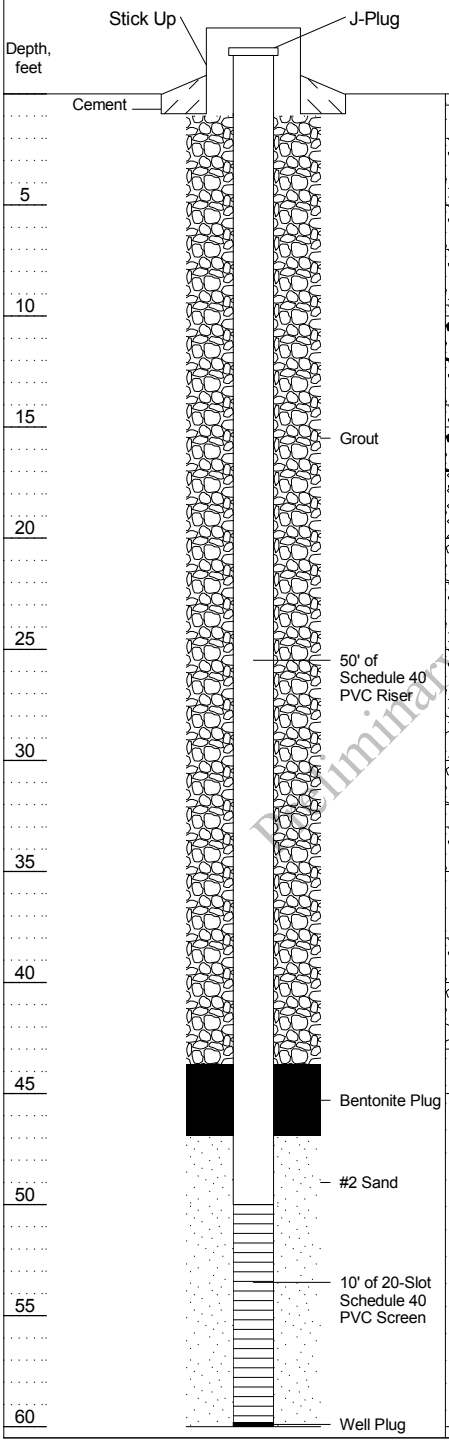
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-043	**48.393775**	**-114.140008**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/15/16-6/16/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, some Silt, little Gravel, trace cobble; moist.		1.2	2.5 ft recovery
	Dark brown, SILT, some fine to medium Sand, little Gravel, trace cobble; moist.		0.4	Sample CFMW-043-SO-0-0.5 collected
5	Brown, fine to medium SAND, some coarse Gravel, little Cobble and Silt; moist.		0.5	Sample CFMW-043-SO-0.5-2 collected
	Drak brown to brown, fine to medium SAND, some medium to coarse Gravel, little Cobble and Silt; moist.		0.1	5 ft recovery
10	Light brown, fine to medium SAND, Gravel and Silt, trace cobble; moist.		0.3	
	Brown to gray, fine to medium SAND, some coarse Gravel, little Crushed rock, trace silt and cobble; dry.		0.3	5 ft recovery
15	Brown, fine to coarse GRAVEL, some fine to medium Sand, little Cobble, trace silt; moist.		0.1	Sample CFMW-043-SO-10-12 collected
	Gray, fine SAND, some Gravel, little Crushed rock and Cobble; dry.		0.1	5 ft recovery
20	Brown, medium SAND, some medium Gravel, little Crushed rock, trace cobble and silt; moist.		2.7	
	Brown to red, medium to coarse GRAVEL, some medium Sand, little Cobble and Silt; moist.		0.5	5 ft recovery
25	Gray, fine to medium SAND, some coarse Gravel, little Cobble and Crushed rock; dry.		0.3	
	Brown, GRAVEL and SAND, little Cobble and Silt; moist.		0.2	3.5 ft recovery
30	Brown, medium SAND, little Crushed rock, trace cobble and grave; dry to moist.		0.1	
	Brown to gray, fine to medium SAND, some medium to coarse Gravel, little Cobble, trace crushed rock; moist.		0.1	5 ft recovery
35	Brown, coarse GRAVEL, some medium Sand and Cobble; moist.		0.2	
	Brown, medium SAND, trace cobble and gravel; moist to wet.		0.2	5 ft recovery
40	Brown, fine to medium SAND, little medium to coarse Gravel and Cobble, trace silt; moist.		1.0	
	Brown, fine SAND, little Silt, trace cobble and fine gravel; dry to moist.		1.0	2.5 ft recovery
45	Gray, fine SAND and medium GRAVEL, little Crushed rock and Silt, trace cobble; dry.		0.3	
	Brown, medium GRAVEL and medium SAND, little Cobble and Silt; wet.		0.3	5 ft recovery
	Brown, fine SAND, trace gravel; wet.			
50	Brown, fine SAND; wet (loose).			
			0.9	5 ft recovery
55			0.5	
			0.4	5 ft recovery
60				End of boring at 60 ft bls

Preliminary Data - PA/SI MDQ Review

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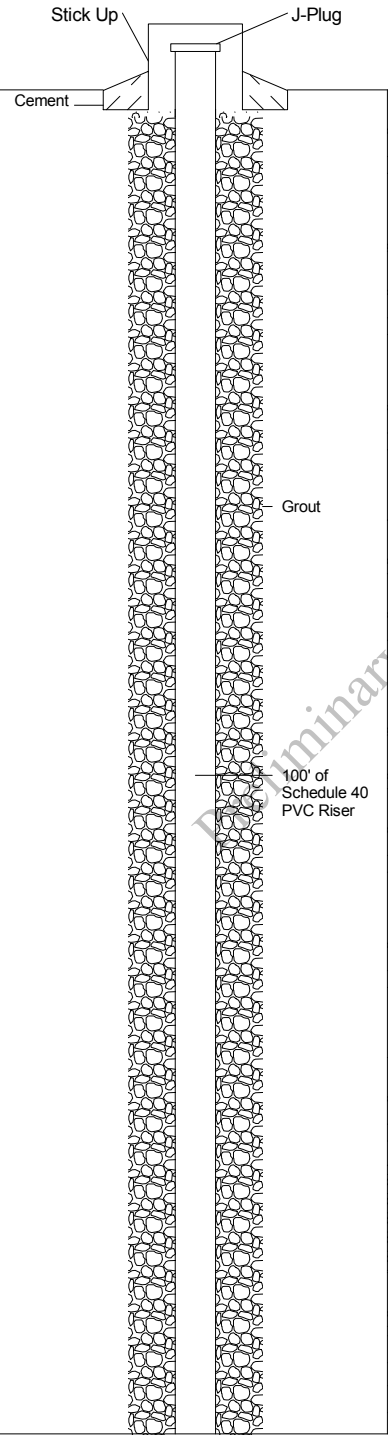
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-044a	**48.393324**	**-114.141918**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**7/20/16-7/22/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to coarse SAND and fine to medium GRAVEL, some coarse Gravel, little Cobble and Silt; dry.			4 ft recovery
				Sample CFMW-044a-SO-0-0.5 and CFMW-044a-SO-0-0.5-Pb collected
5			0.0	Sample CFMW-044a-SO-0.5-2 collected
	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Cobble and Silt; dry.			8 ft recovery
10			0.0	
				Sample CFMW-044a-SO-10-12 collected
15			0.0	
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt and Cobble; dry.			9 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, trace cobble; dry.			
20			0.0	
25	Brown, fine to coarse SAND, little fine to medium Gravel; dry.		0.0	
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble; dry.			8 ft recovery
30			0.0	
35				
	Brown, fine to coarse SAND and fine to medium GRAVEL; dry.			6 ft recovery
40			0.0	
	Brown, fine to coarse GRAVEL, trace fine to coarse sand; moist.		0.0	
45	Brown, fine to coarse SAND, some fine medium Gravel; moist to wet.		0.0	
	Brown, fine to medium SAND, trace silt; wet.			10 ft recovery
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-044a	**48.393324**	**-114.141918**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to medium SAND, trace silt; wet. *(continued)*		0.0	
55					Sample CFMW-044a-SO-49-54 collected 15 ft recovery
				0.0	
60		Brown, medium GRAVEL; wet.			
				0.0	
65		Brown, fine to medium SAND, trace silt; wet.			
				0.0	
70					
				0.0	15 ft recovery
75		Brown, fine SAND, some medium Sand, little Silt; wet.			
80				0.0	
85					
		Brown, fine SAND and SILT, trace clay; wet (soft).			15 ft recovery
90				0.0	
95					
100					
		Brown to light gray, fine SAND and SILT, trace clay; wet (medium stiff).			15 ft recovery
105					

Grout

100' of Schedule 40 PVC Riser

Bentonite Plug

#2 Sand

10' of 20-Slot Schedule 40 PVC Screen

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-044a	**48.393324**	**-114.141918**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110	Well Plug	Brown to light gray, fine SAND and SILT, trace clay; wet (medium stiff). *(continued)*		0.0	
115	Bentonite				20 ft recovery
120				0.0	
125					
130		Light gray, fine SAND and SILT, trace clay; wet (medium stiff).		0.0	
135					15 ft recovery
140				0.0	
145	Grout				
150		Brown to light gray, fine SAND and SILT, trace clay; wet (medium stiff).		0.0	15 ft recovery
155					
160				0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-044a	**48.393324**	**-114.141918**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		Brown to light gray, fine SAND and SILT, trace clay; wet (medium stiff). *(continued)*			165
				0.0	15 ft recovery
170		Light gray, fine SAND and SILT, trace clay; wet (medium stiff).			170
175	Grout				175
180				0.0	180
					15 ft recovery
185				0.0	185
190		Light gray to light brown, fine SAND and SILT, some high plasticity Clay and fine to medium Gravel; moist (stiff).		0.0	190
195					195
		Light gray to light brown, fine SAND and SILT, some high plasticity Clay and fine to medium Gravel, litlte medium to coarse Sand, trace cobble; moist (stiff).			15 ft recovery
200				0.0	200
205					205
210					210
					15 ft recovery
215				0.0	215
		Light brown, fine SAND and SILT, some high plasticity Clay and fine Gravel, trace medium to coarse sand; moist (stiff).			
220				0.0	220

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WELL NO.	LATITUDE	LONGITUDE
CFMW-044a	**48.393324**	**-114.141918**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Brown to tan, fine to coarse SAND and SILT, some high plasticity Clay and fine to coarse Gravel; dry (very stiff).		0.0	
					15 ft recovery
230				0.0	
235	Grout				
		Brown, fine GRAVEL and SILT, some medium to coarse Gravel and fine to coarse Sand, little Clay, trace cobble; wet (dense).		0.0	
240		Brown, coarse SAND, some fine Gravel, little Silt, trace clay; wet (medium dense).		0.0	
				0.0	8 ft recovery
		Brown, fine SAND and SILT, some high plasticity Clay and fine Gravel; moist (stiff).			
245				0.0	
		Brown to tan, fine SAND and SILT, some fine Gravel, little Clay; wet (medium stiff).		0.0	
250		Light gray to light brown, fine SAND and SILT, some fine to medium Gravel and low plasticity Clay, little medium to coarse Sand; moist (stiff).		0.0	8 ft recovery
255					
		Brown to light gray, fine SAND and SILT, some low plasticity Clay and fine to medium Gravel, little medium to coarse Sand; dry (stiff).			10 ft recovery
260				0.0	
265					
		Brown, fine to coarse SAND and SILT, some Clay and fine to coarse Gravel; moist (very stiff).			11 ft recovery
270				0.0	
		Brown, fine SAND amd SILT, some Clay and fine to coarse Gravel, little medium to coarse Sand; dry (very stiff).			
275				0.0	
					15 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-044a	**48.393324**	**-114.141918**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280	Grout	Brown, fine GRAVEL and SILT, some Clay and fine to coarse Sand, litle medium to coarse Gravel; wet (dense). *(continued)*		0.0	
285					
290					
295		Brown, coarse SAND, some fine to medium Sand and Silt, little Clay and medium Gravel; wet (medium dense).			8 ft recovery
300		Brown, fine GRAVEL and SILT, some fine to coarse SAND and medium Gravel, little Clay; moist (stiff).		0.0	End of boring at 300 ft bls

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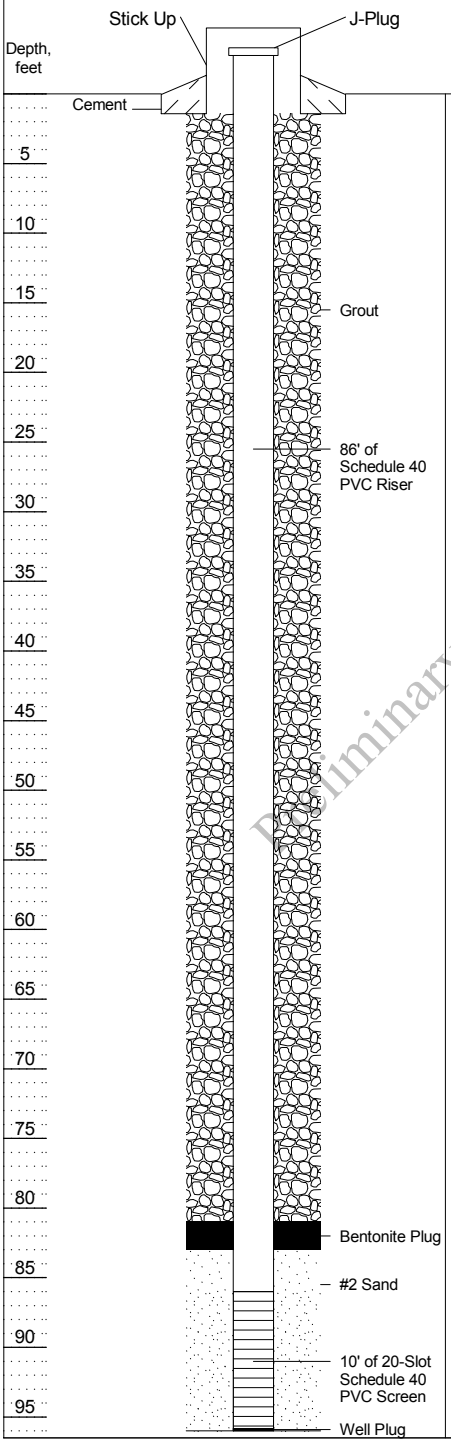
WELL CONSTRUCTION LOG

WELL NO. **CFMW-045**	LATITUDE **48.390253**	LONGITUDE **-114.138103**		
PROJECT NO./NAME **2476.0001Y002 / CFAC RI/FS Phase 1**		LOCATION **2000 Aluminum Drive Columbia Falls, Montana**		
APPROVED BY **A. Muscietta**	LOGGED BY **A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER **Cascade Drilling / Carlos Anguiano**		GEOGRAPHIC AREA **Rectifier Yards**		
DRILL BIT DIAMETER/TYPE **6-in. / Sonic Bit**	BOREHOLE DIAMETER **6-inches**	DRILLING EQUIPMENT/METHOD **Truck Mounted / Rotosonic**	SAMPLING METHOD **Continuous Core**	START-FINISH DATE **8/15/16-8/16/16**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-045a for lithology.			
5					5
10					10
15					15
20					20
25					25
30					30
35					35
40					40
45					45
50					50
55					55
60					60
65					65
70					70
75					75
80					80
85					85
90					90
95					95

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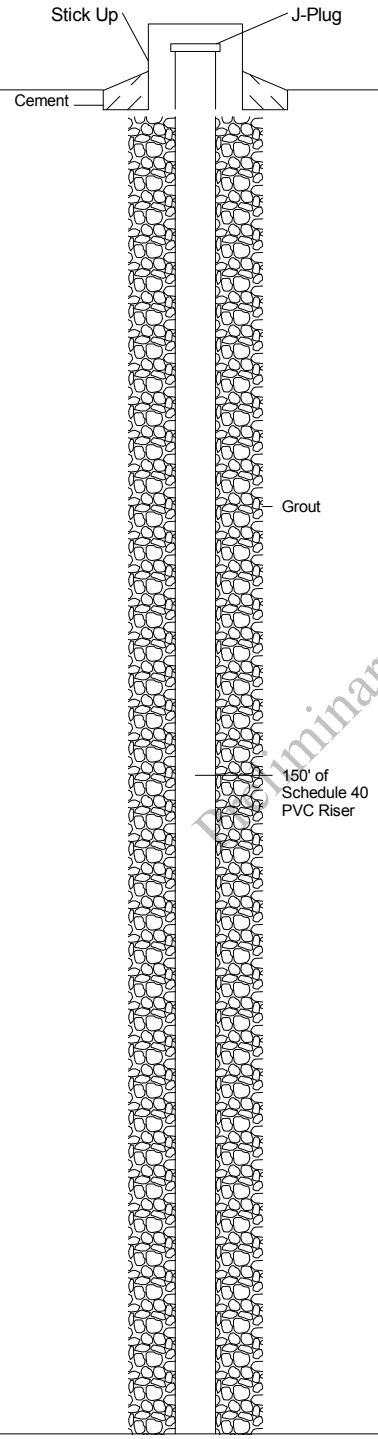
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-045a	**48.390254**	**-114.138061**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**8/12/16-8/16/16**
CASING MAT./DIA.	SCREEN:			
PVC / 2-inch	TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND and fine GRAVEL, little Silt; moist.		0.0	6 ft recovery
	Brown, fine to coarse GRAVEL, little fine to coarse Sand; dry.		0.0	
5				
			0.0	10 ft recovery
10				
	Brown, fine to coarse SAND and fine to medium GRAVEL, trace silt; dry.		0.0	
	Brown, fine to coarse GRAVEL, little fine to coarse Sand; dry.		0.0	
15				
	Brown, fine to coarse SAND and fine to coarse GRAVEL, little Silt, trace cobble; moist.		0.0	10 ft recovery
20				
25				
			0.0	10 ft recovery
30				
35				
			0.0	7 ft recovery
40				
			0.0	10 ft recovery
45				
	Brown, fine to coarse SAND; dry.		0.0	
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-045a	**48.390254**	**-114.138061**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND; dry. *(continued)*		0.0	13 ft recovery
55					
60		Brown, fine to coarse SAND, little Silt; dry.		0.0	
65	Grout			0.0	
		Brown, fine to coarse SAND; dry		0.0	15 ft recovery
70					
75	150' of Schedule 40 PVC Riser				
		Brown, fine to coarse SAND, trace silt; moist.		0.0	
80					
		Brown, medium SAND, some fine to coarse Sand, trace silt; wet.		0.0	15 ft recovery
85					
90					
95					
				0.0	15 ft recovery
100					
105					

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-045a	**48.390254**	**-114.138061**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Brown, medium SAND, some fine to coarse Sand, trace silt; wet. *(continued)*			
				0.0	15 ft recovery
115	Grout				
120					
125	150' of Schedule 40 PVC Riser				
				0.0	15 ft recovery
130					
135					
140					
		Brown, fine to coarse SAND, little Silt; wet.		0.0	15 ft recovery
145	Bentonite Plug				
150	#2 Sand	Grey to brown, fine to coarse SAND, little Silt; wet.		0.0	
155	10' of 20-Slot Schedule 40 PVC Screen	Grey to brown, fine to coarse SAND, trace silt; wet.		0.0	
		Grey to brown, fine to coarse SAND, some Silt, trace clay; wet (loose).		0.0	15 ft recovery
160	Well Plug				
		Grey to brown, fine to coarse SAND, trace silt; wet.		0.0	
	Bentonite				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-045a	**48.390254**	**-114.138061**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165		Grey to brown, fine to coarse SAND, trace silt; wet. *(continued)*			
		Brown, CLAY, some Silt, trace fine sand; wet (stiff).		0.0	
170		Grey to brown, fine to coarse SAND, some Silt, trace clay; wet (loose).		0.0	
				0.0	15 ft recovery
175	Grout				
		Grey to brown, fine to coarse SAND, trace silt; wet (loose).			
180					
185					
		Grey to brown, fine to coarse SAND, some Silt, trace clay; wet (loose).		0.0	15 ft recovery
190					
195					
200					
		Grey to brown, fine SAND and SILT, little Clay; wet (stiff).		0.0	25 ft recovery
205					
210					
215					
220					

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CFMW-045a	**48.390254**	**-114.138061**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Grey to brown, fine SAND and SILT, little Clay; wet (stiff). *(continued)*			
				0.0	15 ft recovery
230	Grout				
235					
240					
				0.0	
245		Brown to grey, fine SAND and SILT, some Clay, trace fine gravel; wet (stiff).		0.0	
250					
255					
		Grey CLAY and SILT, little fine to medium Gravel, trace cobble, trace fine to coarse sand; wet (stiff).		0.0	13 ft recovery
260					
265		Grey, fine to coarse SAND, some Clay, some Silt, little fine to medium Gravel; wet (loose).		0.0	
270		Grey, fine to coarse SAND, some Clay, some Silt, little fine to medium gravel; dry (stiff).		0.0	7 ft recovery
275					
		Brown to tan, fine to coarse SAND, some Silt, some Clay, little fine to medium Gravel, trace cobble; dry (stiff).		0.0	5 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-045a	**48.390254**	**-114.138061**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280			Brown to tan, fine to coarse SAND, some Silt, some Clay, little fine to medium Gravel, trace cobble; dry (stiff). *(continued)*			280
			Brown, fine to coarse SAND, some Silt, some Clay, little fine to medium Gravel; dry (stiff).		0.0	10 ft recovery
285	Grout				0.0	285
290						290
					0.0	9 ft recovery
295			Brown, fine to coarse SAND, some Silt, some Clay, little fine to medium Gravel; dry (stiff).		0.0	295
300						Bottom of boring at 300 ft bls 300

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-047	**48.389726**	**-114.130678**

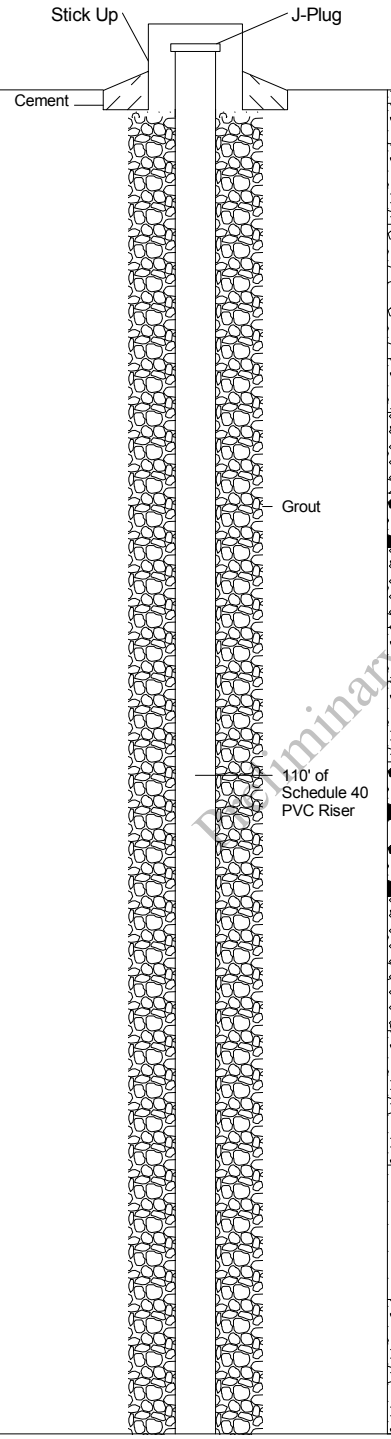
PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**

APPROVED BY	LOGGED BY	
A. Muscietta	**S. Ward**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Jeremiah Charlton	**Rectifier Yards**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/21/16-6/22/16**

CASING MAT./DIA.	SCREEN:
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Brown, fine to medium SAND, some fine to coarse Gravel, little Silt, trace cobble; moist.		0.1	5 ft recovery
			0.2	Sample CFMW-047-SO-0-0.5 collected
	Dark brown, fine to medium SAND, some fine to coarse Gravel and Silt, little Cobble; moist.			Sample CFMW-047-SO-0.5-2 collected
5				5
	Brown, fine to medium SAND, some fine to coarse Gravel, little Silt and Cobble; dry to moist.			2.5 ft recovery
	Brown, coarse GRAVEL, some fine Sand and Cobble, little Silt; dry.		0.1	
10				10
	Brown, fine to medium SAND, some fine to coarse Gravel, trace silt and cobble; moist.		0.4	5 ft recovery
	Brown with red tint, fine to coarse SAND, some fine to coarse Gravel, trace cobble; moist.		0.0	Sample CFMW-047-SO-10-12 collected
15				15
	Brown, fine to coarse GRAVEL, little medium to coarse Sand, trace cobble and silt; moist.		1.1	5 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace cobble; moist.		0.4	
20				20
	Brown, fine to medium SAND, some fine to coarse Gravel, trace cobble; moist.		0.1	5 ft recovery
	Brown, fine to medium SAND and fine to coarse GRAVEL, little Silt, trace cobble; moist to wet.		0.2	
25				25
	Brown to gray, fine to coarse GRAVEL, some fine to coarse Sand, little Cobble; moist to wet.		0.1	5 ft recovery
30				30
	Brown to gray, fine to coarse SAND, some fine to coarse Gravel, little Crushed rock and Silt; dry.		0.2	5 ft recovery
35				35
	Brown to gray, fine to medium SAND, some fine to coarse Gravel, little Crushed rock, trace cobble and silt; moist.		0.2	5 ft recovery
40				40
	Brown, fine to medium SAND, little Silt, trace cobble and gravel; moist.		2.2	2.5 ft recovery
45				45
	Brown to gray, SAND, some fine to medium Gravel and Crushed rock, little Cobble and Silt; moist.		0.4	5 ft recovery
50				50

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-047	**48.389726**	**-114.130678**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Gray to brown, fine to medium SAND, little fine to medium Gravel and Crushed rock, trace cobble; dry.		0.3	2.5 ft recovery
55		Brown, fine to medium SAND, little fine to medium Gravel, trace cobble; moist.		0.1	5 ft recovery
60		Gray to brown, fine to coarse SAND, some medium to coarse Gravel, little Silt and Crushed rock, trace cobble; dry.		1.4	5 ft recovery
65	Grout	No recovery.			No recovery
70		Gray to brown, fine to medium SAND, some medium to coarse Gravel, little Silt and Crushed rock, trace cobble; dry.		0.6	5 ft recovery
75	110' of Schedule 40 PVC Riser	Brown to gray, fine to medium SAND, some fine to medium Gravel, little Crushed rock; dry to moist.		1.1	5 ft recovery, orange staining
80		Brown, fine to medium SAND, some fine Gravel, trace cobble and silt; moist.		0.5	5 ft recovery
		Gray, fine SAND, some fine to medium Gravel, little Crushed rock and Silt; dry.		0.5	Orange staining
85		Brown, fine SAND, little Silt; moist to wet.		0.2	5 ft recovery
90		Brown, fine SAND, trace silt; moist.		0.2	5 ft recovery
		Brown, fine SAND, trace coarse gravel; moist to wet.		0.0	
95				2.0	2.5 ft recovery
				0.1	
100		Brown, fine SAND, little Gravel; moist to wet.		0.1	5 ft recovery
		Brown, fine SAND; wet.		0.0	
		Brown, fine SAND; moist to wet.		0.2	
105	Bentonite Plug	Brown, fine SAND; wet.			5 ft recovery

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WELL NO.	LATITUDE	LONGITUDE
CFMW-047	**48.389726**	**-114.130678**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine SAND; wet. *(continued)*		0.1	
110					5 ft recovery
	#2 Sand			0.2	
115	10' of 20-Slot Schedule 40 PVC Screen				5 ft recovery
				0.1	
120	Well Plug	Brown, fine SAND; moist to wet.		0.0	End of boring at 120 ft bls

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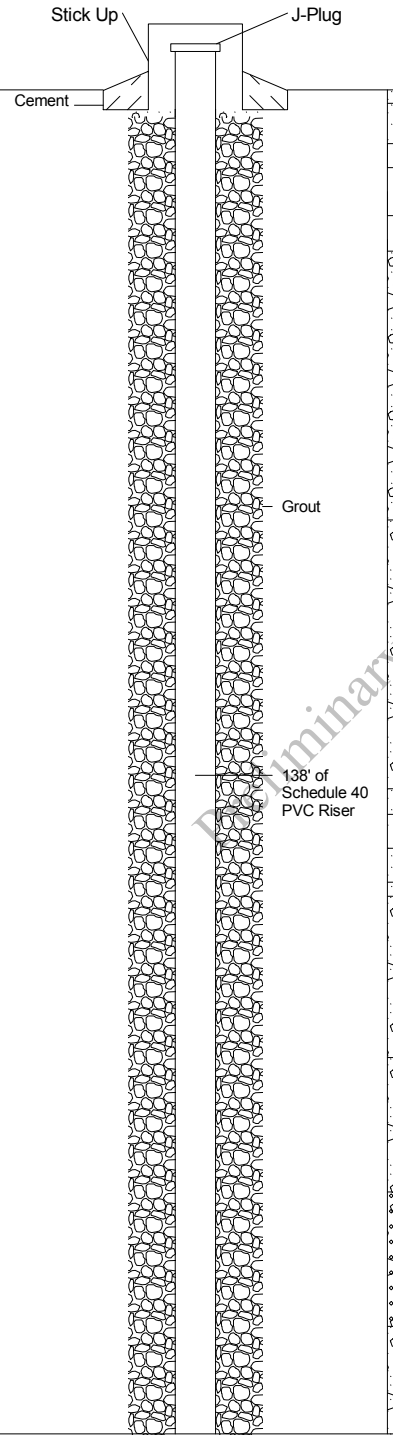
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-049a	**48.389839**	**-114.128787**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**8/20/16-8/25/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted**	MAT. **SCH 40 PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, little Silt, little medium to coarse Gravel; moist, loose		0.1	6 ft recovery
	Dark brown, fine SAND, little fine Gravel; moist loose		0.0	Sample CFMW-049a-SO-0-0.5 collected
5	Brown to dark grey, medium to coarse GRAVEL, some fine to medium SAND, little clay, trace cobble; dense, moist		0.0	CFMW-049a-SO-0-0.5-Pb collected Sample CFMW-049a-SO-0.5-2 collected 7 ft recovery
	Brown, medium to coarse GRAVEL, some medium SAND, little Cobble, trace clay; moist, loose			
10			0.0	
15				Sample CFMW-049a-SO-10-12 collected
	Brown to grey, fine to medium SAND, some medium to coarse Gravel, little Silt, trace cobble; moist, dense			10 ft recovery
20				
			0.0	
25				
	Light brown/grey SILT, some fine Sand, some medium to coarse Gravel; moist, soft			10 ft recovery
			0.2	
30				
	Brown, coarse SAND, some fine Gravel, trace cobble; moist, loose			
			0.0	
35				
	Dark brown to grey, medium to course SAND, some fine to coarse Gravel, little Silt; moist, loose			10 ft recovery
			0.1	
40				
	Brown, fine to coarse SAND, some fine to medium Gravel, little Silt, trace cobble; moist, loose			
			0.0	
45				
	Light grey to brown, fine to medium SAND, some fine to coarse Gravel, little Silt; moist, dense			10 ft recovery
50			0.2	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-049a	**48.389839**	**-114.128787**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Light grey to brown, fine to medium SAND, some fine to coarse Gravel, little Silt; moist, dense *(continued)*			
55	Light grey, medium to coarse GRAVEL, some fine Sand, little crushed Rock, trace cobble; dry, loose		0.3	55
	Grey to brown, fine to coarse GRAVEL, some fine to medium Sand, little Cobble, trace silt; moist, dense			7 ft recovery
60			0.1	60
	Light grey, fine to coarse SAND, some fine to medium Gravel, little pulverized Rock; dry, loose		0.3	
65	Light grey, fine to coarse GRAVEL, some fine to medium SAND, little pulverized Rock; moist to dry, loose			11 ft recovery 65
Grout				
70			0.0	70
75	Light brown/slight orange, fine to coarse SAND, some fine Gravel, little Silt, trace cobble; moist, loose		0.2	75
138' of Schedule 40 PVC Riser	Light grey, fine to medium SAND, little fine to medium Gravel, little pulverized Rock; dry to moist, loose			9 ft recovery
80			0.2	80
85				85
	Brown, fine to medium SAND, trace fine gravel; moist to wet, loose		0.0	
	Light brown, SILT, some fine to medium SAND, trace fine gravel; moist, soft		0.2	10 ft recovery
90	Light grey, fine to medium SAND and GRAVEL, some pulverized Rock, trace cobble; dry, loose			90
95			0.0	95
	Light brown to grey, fine SAND and medium to coarse GRAVEL, little pulverized Rock, trace cobble, trace silt; moist, loose to dense			10 ft recovery
100			0.6	100
	Light grey, fine SAND, some pulzerived Rock, some fine to medium Gravel, little Cobble; dry, loose			
105			0.2	105
				8 ft recovery

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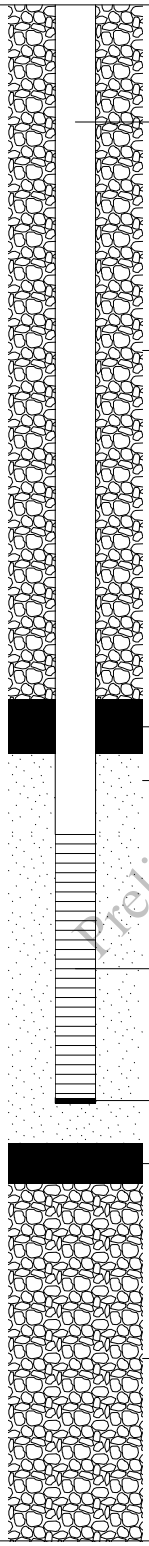
CFMW-049a	**48.389839**	**-114.128787**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Brown to gray, fine SAND and fine to coarse GRAVEL, trace cobble; moist, dense *(continued)*		0.0	
115		Brown, fine SAND and fine to medium GRAVEL, little Cobble; wet, loose		0.5	8 ft recovery Sample CFMW-049a-SO-112-117 collected
120				0.0	
125		Brown, fine to medium SAND, trace silt, trace gravel; wet, loose		0.1	9 ft recovery
130				0.0	
135		Brown, fine to medium SAND, some fine to coarse Gravel, little Silt, trace cobble; moist to wet, dense		0.1	
140		Brown, fine to medium SAND and GRAVEL, trace cobble; wet, loose		0.3	9 ft recovery
145		Brown, fine to coarse SAND, some medium to coarse GRAVEL, some Silt, trace cobble; wet, dense		0.2	3 ft recovery
150		Grey, fine to medium GRAVEL, some medium to coarse SAND, little Silt, little Cobble; moist to wet, loose		0.0	7 ft recovery 7" Conductor casing set to 150 ft bls
155		Light brown/slight orange, SILT, little fine to medium Gravel, little low plasticity Clay; dry to moist, stiff		0.1	12 ft recovery
160				0.2	



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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-049a	**48.389839**	**-114.128787**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165	Light brown/slight orange, SILT, trace fine to medium gravel, trace low plasticity clay; moist, stiff *(continued)*		0.8	
	Light brown, SILT, little fine Sand, little fine to medium Gravel; moist, dense		0.7	8 ft recovery
170	Light brown/slight orange, SILT, little low plasticity Clay, little fine Sand, trace fine gravel; moist, stiff		0.3	
175	Grout			
	Light brown/slight orange, SILT, some fine Gravel, little low plasticity Clay, trace fine sand; moist, stiff			15 ft recovery
180			0.1	
185				
190				10 ft recovery
195			0.1	
200	Light brown/light grey, fine SAND and SILT, little coarse Gravel, little pulverized Rock, trace cobble; dry, loose		0.0	
	Light brown, fine SAND and SILT, little fine to medium Gravel, little pulverized Rock, trace cobble; dry, loose		0.0	4 ft recovery
205	Light brown, fine SAND and SILT, some pulverized Rock, little fine Gravel; moist to dry, loose		0.0	9 ft recovery
210	Light brown SILT, little Clay, little coarse Sand, trace medium gravel; moist, stiff		0.2	
215	Brown/slight red, SILT, little Clay, trace fine gravel; moist, stiff		0.1	12 ft recovery
220	Orange brown, SILT, little Clay, trace fine gravel; moist, stiff			

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CFMW-049a	**48.389839**	**-114.128787**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
			Orange brown, SILT, little Clay, trace fine gravel; moist, stiff *(continued)*		0.3	
225						225
			Brown/slight red, SILT, little Clay, trace fine gravel; moist, soft to stiff		0.2	10 ft recovery
230						230
	Grout		Brown/slight red to orange, SILT, little medium to coarse Gravel, little fine Sand; moist, stiff		0.2	
235						235
			Brown, SILT, little fine Gravel, little fine Sand; moist, soft to stiff		0.2	8 ft recovery
240			Grey, fine to coarse SAND, some pulverized Rock, some fine to medium Gravel; dry, loose		0.2	240
			Light brown, fine SAND and SILT, little fine to edium Gravel; moist, soft to stiff		0.5	
245						245
			Light brown, fine SAND and SILT, some fine Gravel; moist, soft		0.0	10 ft recovery
			Brown, SILT, little fine Gravel, trace clay; moist, stiff			
250					0.3	250
			Grey, fine SAND, some pulverized Rock, little fine Gravel, little Cobble; dry, loose		0.4	
255			Brown/slight orange, SILT, little fine to medium Gravel; moist, stiff		0.7	255
			Brown, SILT, some fine to medium Gravel, little fine Sand; moist, stiff		0.2	15 ft recovery
			Light brown/slight orange, SILT, little Clay, trace fine to medium gravel, trace fine sand; moist, stiff			
260						260
265					0.0	265
270						270
			Light brown, SILT, little fine to medium Gravel, trace low plasticity clay; moist, stiff			9 ft recovery
275						275
					0.2	

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WELL NO.	LATITUDE	LONGITUDE
CFMW-049a	**48.389839**	**-114.128787**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS	
280			Light brown, SILT, little fine to medium Gravel, trace low plasticity clay; moist, stiff *(continued)*				280
						9 ft recovery	
285	Grout				0.1		285
290			Light brown, SILT, little fine Sand, trace fine gravel, trace clay; dry to moist, soft where silt fractured		0.1	3 ft recovery	290
295			Brown/slight orange, SILT, little Clay, trace fine gravel; moist, stiff		0.0	6 ft recovery	295
300						End of boring at 300 ft bls	300

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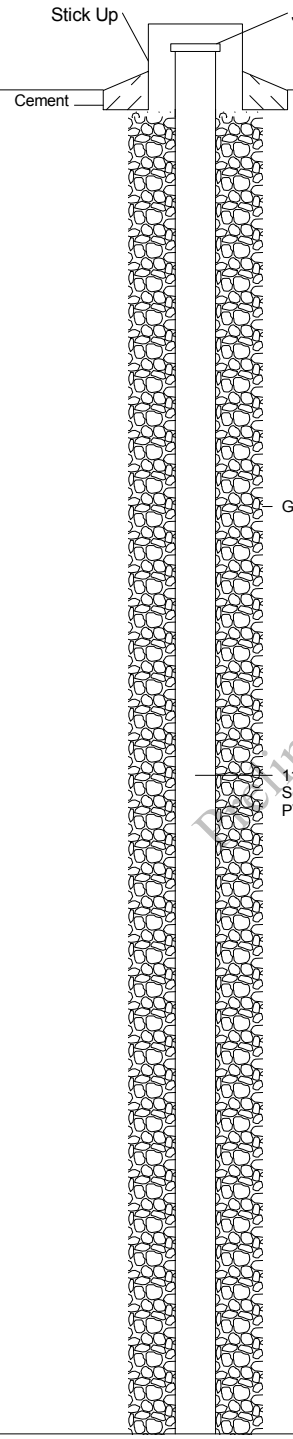
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-050	**48.389354**	**-114.128187**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Jeremiah Charlton		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/22/16-6/24/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, some Silt, little fine Gravel and Topsoil; moist.	1.7	5 ft recovery
	Dark brown, fine to medium SAND, some fine to coarse Gravel and Silt, trace cobble; moist.	0.5	Sample CFMW-050-SO-0-0.5 and CFMW-050-SO-0-0.5-Pb collected
	Dark brown to black, fine to coarse GRAVEL, some fine Sand and Silt, trace cobble; moist (dense).	5.5	Sample CFMW-050-SO-0.5-2 collected
5	Brown, medium to coarse GRAVEL, some fine Sand, little Silt, trace cobble; moist (dense).	5.5	5 ft recovery
	Brown, coarse GRAVEL, some Cobble, little fine to coarse Sand and Silt; moist.	0.1	
	Brown, coarse SAND, some fine to medium Gravel, trace cobble; moist.	0.5	
10	Gray to brown, fine to medium GRAVEL, some fine to medium Sand and Cobble; moist.	2.0	5 ft recovery
	Gray to red, fine to medium GRAVEL, some fine to coarse Sand, little Cobble and Crushed rock; dry.	1.0	Sample CFMW-050-SO-10-12 collected
15	Brown, coarse SAND, some fine to medium Gravel, little Crushed rock, trace silt and cobble; moist.	0.4	5 ft recovery
	Brown to gray, fine to medium GRAVEL, some fine to medium Sand, little Silt, trace cobble; dry to moist.	0.7	
20	Gray, fine to coarse GRAVEL, some fine to medium Sand, trace silt; dry to moist.	1.4	5 ft recovery
	Brown, fine to medium GRAVEL, some fine Sand, little Silt, trace cobble; moist to wet.	0.3	
25	Brown to red, fine to medium SAND, some fine to medium Gravel, trace silt and cobble; moist.	0.2	5 ft recovery
	Brown, medium SAND, some fine to coarse Gravel and Cobble, little Silt; moist.	0.1	
30	Brown, fine to coarse GRAVEL, some medium Sand, trace cobble, silt and crushed rock; moist.	0.1	5 ft recovery
	Brown, coarse GRAVEL, some fine Sand and Cobble, little Silt; mosit to wet.	0.1	
35	Brown, coarse SAND, some fine to coarse Gravel, little Silt, trace cobble; moist.	0.3	Black and orange staining
	Brown, fine to medium GRAVEL, little Crushed rock and Silt; dry to moist.	0.2	5 ft recovery
40	Gray, fine to medium SAND, some fine Gravel, little Crushed rock, trace silt; dry.	0.5	5 ft recovery
	Brown, fine to coarse GRAVEL, some coarse Sand, trace cobble and silt; moist to wet.	0.5	
45		0.5	
50		0.2	

Preliminary Draft - For MDEQ Review

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-050	**48.389354**	**-114.128187**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Gray, fine to medium GRAVEL, some fine to medium Sand, little Crushed rock, trace cobble; dry. *(continued)*		1.0	5 ft recovery
55				55
			0.0	5 ft recovery
	Brown, fine SAND, trace gravel and silt; dry to moist.		0.0	
60				60
	Brown, fine SAND, little fine to medium Gravel and Silt; dry to moist.		0.0	5 ft recovery
	Gray, fine GRAVEL, some fine to medium Sand, little Silt and Crushed rock; dry.		0.0 0.7	
65	Brown, fine SAND, little Silt, trace gravel; dry to moist.			65
	Grout		0.6	5 ft recovery
	Gray, fine to medium GRAVEL, some fine to medium Sand, little Crushed rock, trace cobble and silt; dry.		0.3	
70				70
	Brown, fine to medium GRAVEL, some fine to medium Sand, little Silt, trace cobble; dry to moist.		1.1	5 ft recovery
75	Gray, fine SAND, some fine to medium Gravel, little Silt, trace cobble; dry.			75
	110' of Schedule 40 PVC Riser		0.5	5 ft recovery
	Gray to brown, medium to coarse GRAVEL, some fine to coarse Sand, little Silt, trace cobble; moist.		0.0	
	Gray, fine SAND, some fine to medium Gravel, little Silt, trace cobble; dry.		0.9	
80				80
	Gray, fine to medium GRAVEL, some fine to medium Sand, little Crushed rock, trace silt and cobble; dry.		0.8	5 ft recovery
85				85
	Gray, fine SAND, some fine Gravel and Crushed rock, trace cobble; dry.		1.0	4 ft recovery
90				90
	Brown, coarse SAND, some fine to coarse Gravel, some Silt, trace cobble; moist to wet.		0.8	5 ft recovery
95				95
	Brown to gray, fine to coarse GRAVEL, some fine to coarse Sand, little Silt, trace cobble; dry to moist.		1.1	5 ft recovery Purple staining
	Brown to gray, fine to coarse SAND, some fine Gravel, little Silt and Crushed rock; dry to moist.		3.0	Purple staining
100				100
	Brown, fine SAND, trace gravel; wet.		0.7	5 ft recovery
105				105
	Bentonite Plug			5 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-050	**48.389354**	**-114.128187**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine SAND, trace gravel; wet. *(continued)*		0.9	
110					110
	#2 Sand	Brown with black staining, fine SAND, trace gravel; wet.		0.2	5 ft recovery Black staining
		Brown, fine SAND, trace silt; wet (dense).		0.3	
115	10' of 20-Slot Schedule 40 PVC Screen	Brown, fine to medium SAND, trace silt and gravel; wet.		1.6	5 ft recovery 115
		Brown, fine to medium SAND, trace silt; wet.		0.2	
120	Well Plug				End of boring at 120 ft bls 120

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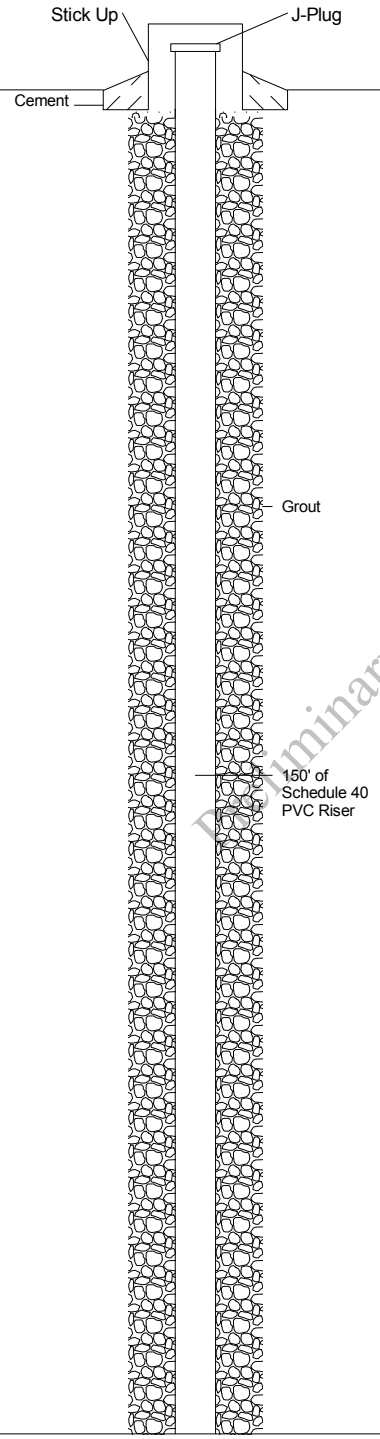
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-053a	**48.390701**	**-114.142032**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Rod Mill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**8/17/16-8/19/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND and fine to medium GRAVEL, some coarse Gravel, trace cobble; moist (loose).		0.0	4 ft recovery Sample CFMW-053a-SO-0-0.5 collected CFMW-053a-SO-0-0.5-Pb collected
	Brown, medium GRAVEL, some fine and coarse Gravel, little fine to coarse Sand; dry (loose).		0.0	Sample CFMW-053a-SO-0.5-2 collected 10 ft recovery
	Brown, medium GRAVEL, some fine and coarse Gravel, little fine to coarse Sand, trace silt and cobble; dry (loose).		0.0	Sample CFMW-053a-SO-10-12 collected
	Brown, fine to medium GRAVEL, some fine to coarse Sand, little coarse Gravel, trace cobble and silt; dry (loose).		0.0	5 ft recovery
	Brown, fine to coarse GRAVEL, some fine to coarse Sand, little Cobble, trace silt and pulverized cobble; dry (loose).		0.0	9 ft recovery
	Brown, fine to coarse GRAVEL and fine to coarse SAND, some pulverized Cobble; dry (loose).		0.0 0.0	7 ft recovery
	Brown, fine to coarse SAND, some fine to coarse Gravel, little Cobble, trace silt; dry (loose).		0.0	11 ft recovery
	Brown, fine to coarse SAND and fine to coarse GRAVEL, some pulverized		0.0	10 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-053a	**48.390701**	**-114.142032**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Cobble/Boulder, trace silt; dry (loose). Brown, fine to coarse SAND, some fine Gravel, little Silt, trace medium to coarse gravel; moist (loose). *(continued)*		0.0	
		Brown, fine to coarse SAND, little fine Gravel; moist (loose).		0.0	
55		Brown, fine to medium SAND, little Silt; wet (loose).		0.0	55
60		Brown, fine to medium SAND, trace silt; wet (loose).		0.0	10 ft recovery 60
65	Grout				Sample CFMW-053a-SO-59-64 collected 65
70		Brown, fine to medium SAND, little Silt; wet (loose).			16 ft recovery 70
75	150' of Schedule 40 PVC Riser			0.0	75
80					80
85		Brown, fine to medium SAND, some Silt; wet (loose).			16 ft recovery 85
90				0.0	90
95					95
100		Brown, fine SAND, some Silt, little medium Sand, trace clay; wet (medium dense/stiff).			16 ft recovery 100
105					105

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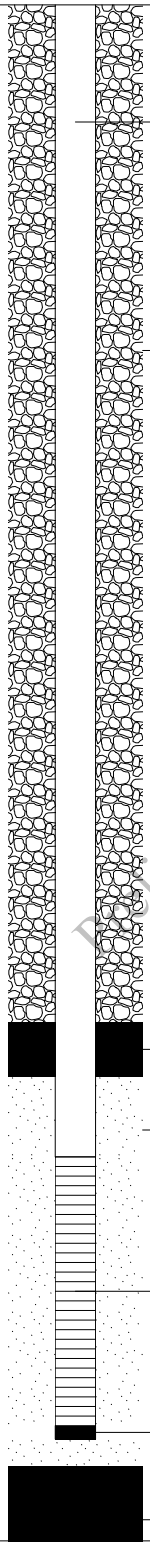
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-053a	**48.390701**	**-114.142032**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Brown, fine SAND, some Silt, little medium Sand, trace clay; wet (medium dense/stiff). *(continued)*		0.0	
115					15 ft recovery
120				0.0	
125		Light gray, fine SAND and SILT, little high plasticity Clay; wet (medium dense/stiff).			
130				0.0	
135		Light gray/light brown, fine SAND and SILT, trace high plasticity clay; wet (medium stiff/dense).			16 ft recovery
140				0.0	
145					15 ft recovery
150					
155				0.0	
160					15 ft recovery
		Light gray/light brown, fine to medium SAND, some Silt, trace high plasticity clay; wet (medium dense/stiff).			



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WELL NO.	LATITUDE	LONGITUDE
CFMW-053a	**48.390701**	**-114.142032**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165	Bentonite	Light gray/light brown, fine to medium SAND, some Silt, trace high plasticity clay; wet (medium dense/stiff). *(continued)*			
				0.0	
170					
175					
					10 ft recovery
180	Grout				
				0.0	
185					
					10 ft recovery
190					
				0.0	
195					
					15 ft recovery
200					
				0.0	
205					
210					
					15 ft recovery
215					
				0.0	
220					

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-053a	**48.390701**	**-114.142032**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Light brown/light gray, fine SAND and SILT, some high plasticity clay; wet (medium stiff/dense). *(continued)*			
230	Grout	Light gray/light brown, fine SAND and SILT, some high plasticity Clay, trace medium sand; wet (medium dense/stiff).			15 ft recovery
235				0.0	
240					
245		Light gray/light brown, fine SAND and SILT, some high plasticity Clay; wet (medium dense/stiff).			15 ft recovery
250				0.0	
255					
260					20 ft recovery
265				0.0	
270					
275					15 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-053a	**48.390701**	**-114.142032**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280		Light gray/light brown, fine SAND and SILT, some high plasticity Clay; wet (medium dense/stiff). *(continued)*		0.0	
285	Grout				
		Light gray/light brown, fine to coarse SAND, little Silt, trace clay and fine gravel; wet (loose).		0.0	
290					
		Light brown/light gray, fine to medium SAND and SILT, little coarse Sand, trace high plasticity clay and fine gravel; wet.			9 ft recovery
295				0.0	
300					End of boring at 300 ft bls

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WELL CONSTRUCTION LOG

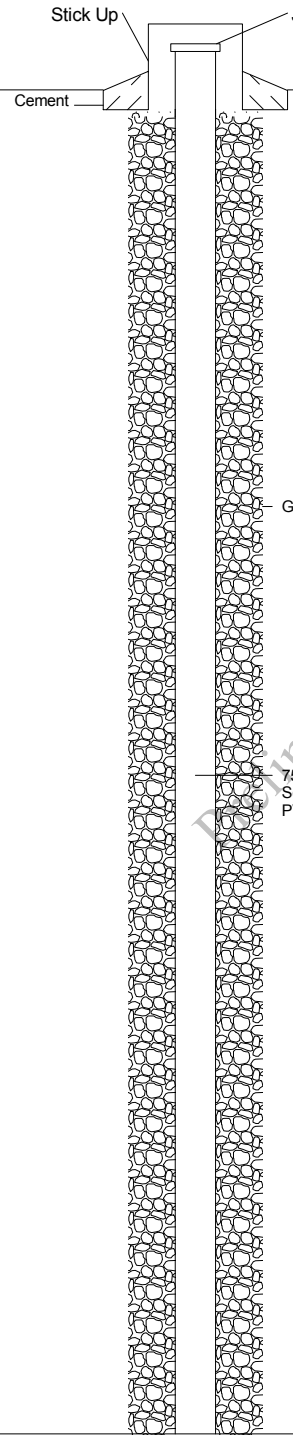
WELL NO.	LATITUDE	LONGITUDE
CFMW-054	**48.3905428**	**-114.1444823**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **Rod Mill**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**6/20/16-6/21/16**

CASING MAT./DIA.: **SCH 40 PVC / 2-inch**

SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, some medium Gravel, trace cobble and silt; moist.		0.0 0.4	2 ft recovery Sample CFMW-054-SO-0-0.5 collected
	Brown to gray, fine to coarse GRAVEL, some medium to coarse Sand, little Cobble, trace silt; moist.		0.4	Sample CFMW-054-SO-0.5-2 collected, black staining
5				5
	Brown to gray, GRAVEL and COBBLE, little fine to medium Sand; dry to moist (loose).		0.4	5 ft recovery
	Gray, medium to coarse GRAVEL and COBBLE, little fine to coarse Sand and Crushed rock; moist.		0.1	
10				10
	Gray, fine SAND and CRUSHED ROCK, little Gravel and Cobble; dry (loose).		3.0	2.5 ft recovery
	Gray, medium to coarse SAND, some Cobble; moist.		1.7	Sample CFMW-054-SO-10-12 collected
15				15
	Gray, medium GRAVEL, some fine Sand, little Cobble; dry.		0.0	3 ft recovery
	Gray, medium to coarse GRAVEL, some fine to coarse Sand, little Cobble, trace silt; dry.		0.1	
20				20
	Gray, fine SAND, some medium to coarse Gravel and Crushed rock, trace cobble; dry.		0.3	5 ft recovery Red staining
	Brown to gray, coarse GRAVEL, some medium to coarse Sand, little Cobble and Crushed rock; dry.		3.0	
25				25
	Brown to reddish brown, fine to medium SAND, little fine to medium Gravel, trace cobble and silt; moist.		0.1	5 ft recovery
30				30
	Brown, medium to coarse SAND, little fine to coarse Gravel, trace cobble; moist to wet.		1.2 1.4	2.5 ft recovery
35				35
	Brown, medium to coarse SAND, some fine to medium Gravel, trace cobble and silt; moist to wet.		1.0	5 ft recovery
	Brown to gray, medium SAND, some fine to medium Gravel, trace cobble and crushed rock; moist to wet.		1.0	
40				40
	Brown to gray, fine SAND, little Gravel and Crushed rock, trace silt; dry.		1.0	5 ft recovery
	Brown, coarse GRAVEL and COBBLE, little medium Sand, trace silt; moist.		1.8 0.7	
	Brown, medium SAND, some medium to coarse Gravel, little Cobble; moist to wet.		0.7	
45				45
	Gray, fine SAND, some medium Gravel, little Crushed rock; dry.		0.5	5 ft recovery
	Brown, medium SAND; wet.		0.5	
	Brown, medium SAND, some coarse Gravel, trace cobble; moist to wet.		0.7	Yellow-orange staining
	Gray, fine SAND, some Crushed rock, little			
50				50

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-054	**48.3905428**	**-114.1444823**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**S. Ward**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		medium Gravel; dry.		0.7	5 ft recovery
		Brown to gray, medium to coarse SAND, little fine Gravel, trace cobble; moist.		1.0	
		Gray, fine to coarse SAND, some fine to medium Gravel, little Crushed rock; dry.		1.9	
55		Brown to gray, fine to coarse GRAVEL, some fine to coarse Sand and Cobble, trace silt; moist.			No recovery
	Grout	No recovery.			
60		Brown, medium to coarse SAND, some medium to coarse Gravel, little Silt, trace cobble; moist.		1.6	1 ft recovery
65		Brown, medium to coarse SAND, little fine Gravel, trace cobble; wet.		0.7	5 ft recovery
		Brown, fine SAND; wet.		2.2	
70	Bentonite Plug	Brown, fine SAND, little Silt; wet.		2.2	5 ft recovery
		Brown, fine to medium SAND; wet (loose).		0.4	
75	#2 Sand	Brown, fine to medium SAND, little Silt; wet.		0.4	5 ft recovery
80	10' of 20-Slot Schedule 40 PVC Screen	Brown, medium SAND, trace gravel; wet (loose).		0.0	5 ft recovery
85	Well Plug				End of boring at 85 ft bls

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-056a	48.394783	-114.149879

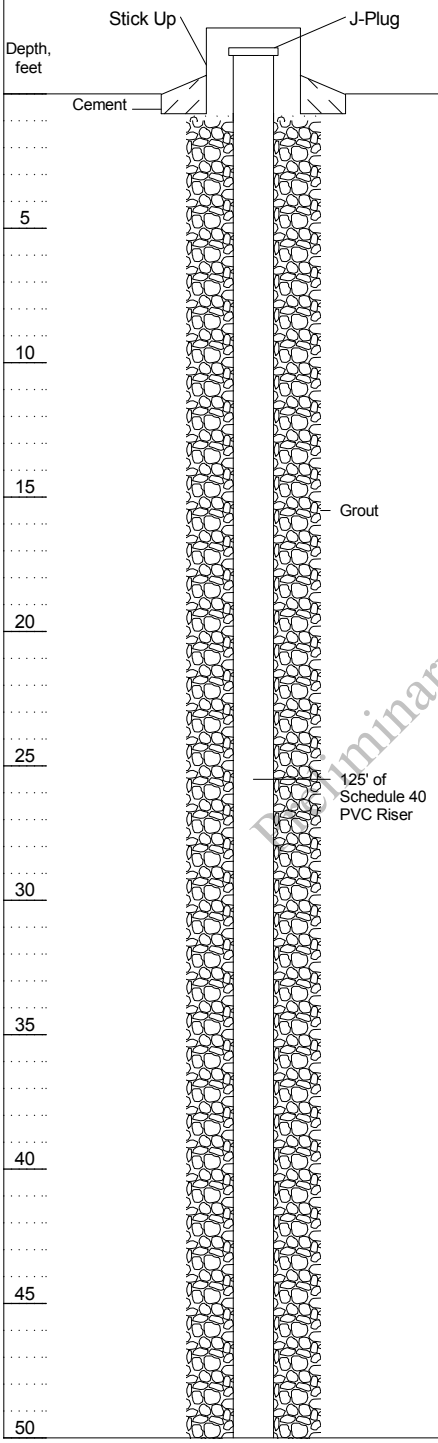
PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	2000 Aluminum Drive Columbia Falls, Montana

APPROVED BY	LOGGED BY
A.Muscietta	A. Hoffmann

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Carlos Anguiano	Aluminum City

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	6-inches	Truck Mounted / Rotosonic	Continuous Core	7/15/16-7/19/16

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	Slotted	SCH 40 PVC	10.0ft	2-inch	20-Slot



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND, little Silt and Organics, trace fine gravel; dry.		0.0	6 ft recovery
	Brown, fine to coarse SAND, little Silt, trace organics and fine gravel; dry.		0.1	Sample CFMW-056a-SO-0-0.5 and CFMW-056a-SO-0-0.5-Pb collected
5	Brown, fine to coarse SAND and GRAVEL (rounded), little Cobble; dry.		0.0	Sample CFMW-056a-SO-0.5-2 collected
	Brown, fine to coarse SAND and fine to coarse GRAVEL (rounded), some Cobble; dry.			10 ft recovery
10			0.0	
15				Sample CFMW-056a-SO-10-12 collected
	Brown, fine to coarse SAND, some fine to coarse Gravel (rounded); dry.		0.0	8 ft recovery
20	Brown, fine to coarse SAND and fine GRAVEL (angular), some medium to coarse Gravel (rounded), trace cobble; dry.		0.0	
25	Brown, fine to coarse SAND, little fine to coarse Gravel (angular); dry.		0.0	
	Brown, fine to coarse SAND, little fine to coarse Gravel; dry to moist.			8 ft recovery
30			0.0	
	Brown, fine to medium GRAVEL, little fine to coarse Sand; wet.		0.0	
35	Brown, fine to coarse SAND, trace fine to medium gravel; moist to wet.		0.0	
	Brown, fine to coarse SAND; wet.			10 ft recovery
40			0.0	
				Sample CFMW-056a-SO-37-42 collected
45	Brown to light gray, fine to coarse SAND, trace silt; wet.		0.0	
	Brown, fine to medium SAND, trace silt; wet (loose).			8 ft recovery
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-056a	**48.394783**	**-114.149879**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A.Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to medium SAND, trace silt; wet (loose). *(continued)*		0.0	
55		Brown, fine SAND, some Silt; wet (loose).		0.0	
		Brown, fine to medium SAND, trace silt; wet (loose).			15 ft recovery
		Brown to light brown, fine SAND and SILT, trace clay; wet (loose).			
60					
				0.0	
65					
	Grout				
70					
		Light brown to light gray, fine SAND and SILT, some Gravel, little Clay; wet (medium stiff).			15 ft recovery
75				0.0	
	125' of Schedule 40 PVC Riser				
80		Light gray to brown, fine SAND and SILT, trace clay and medium gravel; moist (soft).		0.0	
85					
		Light brown to light gray, fine SAND and SILT, some medium to coarse Gravel, little Clay; wet (medium stiff).			15 ft recovery
90				0.0	
		Light brown to light gray, fine SAND and SILT, some Clay and medium Gravel, trace cobble; moist to wet (stiff).			
95				0.0	
100					
					12 ft recovery
105				0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-056a	**48.394783**	**-114.149879**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A.Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Light brown to light gray, fine SAND and SILT, some Clay and medium Gravel, trace cobble; dry (stiff). *(continued)*		0.0	
115				0.0	8 ft recovery
120					7" Conductor casing set to 120 ft bls 11 ft recovery
125		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay; moist to wet (medium dense).		0.0	
130					17 ft recovery
140				0.0	
150					17 ft recovery
155				0.0	
160		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay; moist to dry (dense).			

Grout
Bentonite Plug
#2 Sand
10' of 20-Slot Schedule 40 PVC Screen
Well Plug
Bentonite
Grout

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-056a	**48.394783**	**-114.149879**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A.Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165				0.0	165
		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay; moist (dense).			15 ft recovery
170				0.0	170
175	Grout				175
180					180
					15 ft recovery
185					185
190				0.0	190
195					195
					15 ft recovery
200				0.0	200
205		Orange-brown to tan, fine to coarse SAND, some Silt and fine to coarse Gravel and Cobble, little Clay; moist (dense).			205
210				0.0	210
		Orange-brown to tan, fine to coarse SAND, some Silt and fine to caorse Gravel, little Clay and Cobble; moist to wet (medium dense).			13 ft recovery
215				0.0	215
220					220

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-056a	**48.394783**	**-114.149879**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark orange-brown to tan, fine to coarse SAND and SILT, some Clay and fine to coarse Gravel, little Cobble; dry (very stiff). *(continued)*		0.0	
225		Orange-brown to tan, fine to coarse SAND and SILT, some Clay and fine to coarse Gravel, little Cobble; moist (stiff).			13 ft recovery
230				0.0	
	Grout				
235					
		Dark orange-brown, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay and Cobble; moist to wet (medium dense).			7 ft recovery
240				0.0	
245					14 ft recovery
250				0.0	
255					
260		Dark orange-brown, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay and Cobble; moist (dense).		0.0	7 ft recovery
		Dark orange-brown, fine to coarse SAND and SILT, some Clay and fine to coarse Gravel, little Cobble; dry (stiff).		0.0	
265				0.0	11 ft recovery
270		Dark orange-brown, fine to coarse SAND, some Silt and fine to coarse Gravel, little Clay and Cobble; moist to wet (medium dense).		0.0	
275		Brown to dark gray, fine to coarse SAND and SILT, some Clay and fine to coarse Gravel, little Cobble; dry (stiff).		0.0	
				0.0	3 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-056a	**48.394783**	**-114.149879**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280			Brown to dark gray, fine to coarse SAND and SILT, some Clay and fine to coarse Gravel, little Cobble; moist (stiff).			14 ft recovery
285	Grout					
290					0.0	
						End of boring at 294 ft bls

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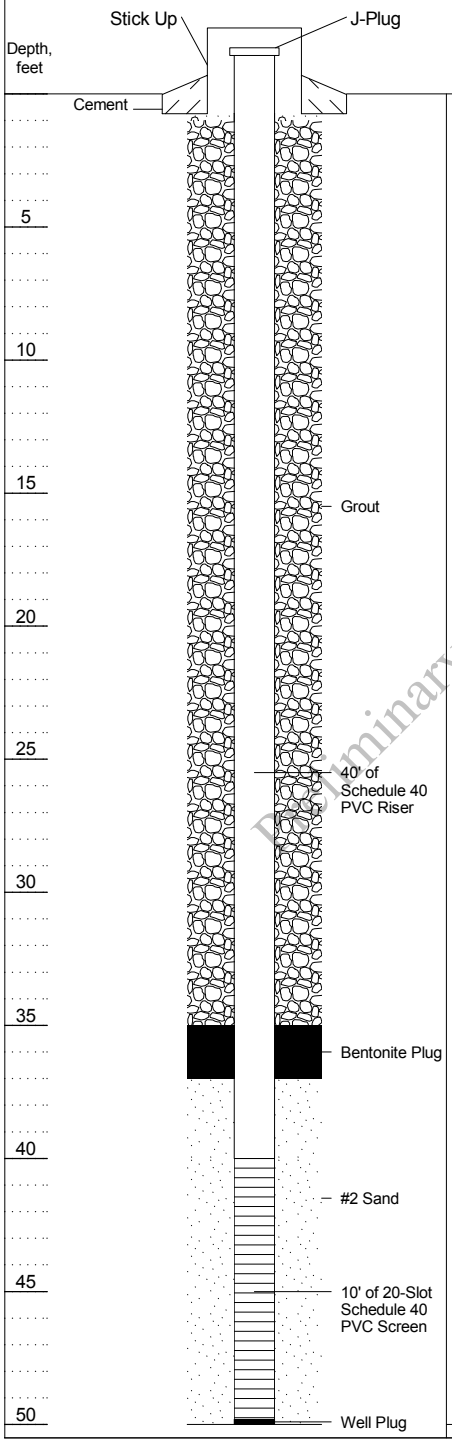
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-056b	**48.394791**	**-114.149911**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Aluminum City**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**7/19/16-7/19/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-056a for lithology.			
5					5
10					10
15					15
20					20
25					25
30					30
35					35
40					40
45					45
50					50

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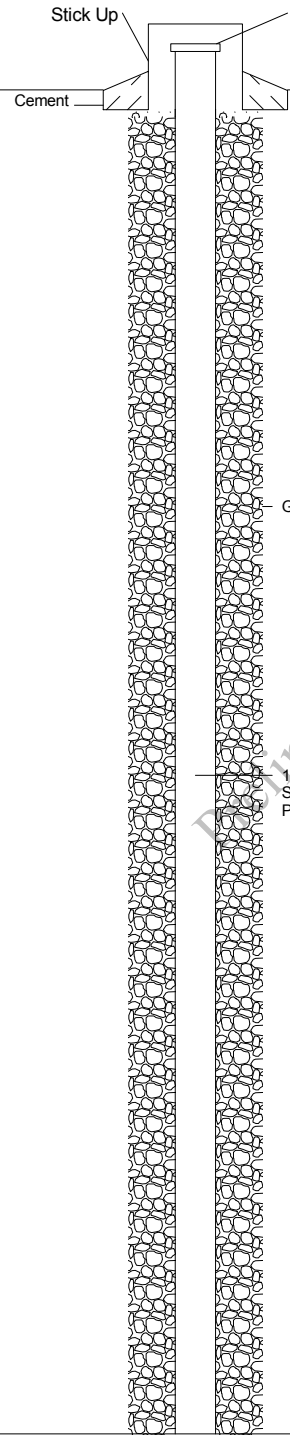
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-057a	**48.391837**	**-114.158263**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Carlos Anguiano**	GEOGRAPHIC AREA: **Aluminum City**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**7/27/16-7/30/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to medium SAND, trace silt and organics; dry.		0.8	6 ft recovery
	Brown, fine to medium SAND, trace silt; dry.		0.6	Sample CFMW-057a-SO-0-0.5 collected
5	Brown, fine to medium SAND, some Silt, little Clay; moist.		0.2	Sample CFMW-057a-SO-0.5-2 collected
	Brown, fine to coarse SAND and fine to medium GRAVEL, little Silt; moist.		0.0	8 ft recovery
10				
	Brown, medium GRAVEL; moist.		0.0	Sample CFMW-057a-SO-10-12 collected
15	Brown, fine to coarse SAND and fine to medium GRAVEL; dry.		0.0	
			0.0	9 ft recovery
20	Brown, fine to coarse SAND, some fine to coarse GRAVEL, little Cobble; moist.		0.2	
25				
	Brown, fine to medium SAND; wet.		0.1	
	Brown, fine to coarse SAND, trace medium gravel; wet.		0.0	5 ft recovery
30				
	Brown, fine to medium SAND, trace silt; wet (medium dense).			15 ft recovery
35				
				Sample CFMW-057a-SO-30-35 collected
40			0.0	
45				
	Brown, fine to medium SAND, little Silt; wet (medium stiff).			15 ft recovery
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-057a	**48.391837**	**-114.158263**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to medium SAND, little Silt; wet (medium stiff). *(continued)*			
55		Brown, fine to medium SAND, trace silt; wet (loose).		0.0	
60		Brown, fine to coarse SAND; wet (loose).		0.0	15 ft recovery
				0.0	
65	Grout				
		Brown, fine SAND, some Silt; wet (medium stiff).			
70				0.0	
75	128' of Schedule 40 PVC Riser				
		Brown, fine SAND and SILT, some high plasticity Clay; wet (medium stiff).			15 ft recovery
				0.0	
80		Light gray, fine SAND and SILT, some high plasticity Clay; wet (medium stiff).		0.0	
		Light gray, fine SAND and SILT, some high plasticity Clay, little fine Gravel; wet (stiff).			
85				0.0	
		Brown to light gray, fine to coarse SAND, some fine Gravel, little Silt, trace clay; wet (loose).			
90				0.0	
		Light brown to light gray, SILT, some low plasticity Clay and fine to medium Sand, little fine Gravel; moist (stiff).			10 ft recovery
95					
				0.0	
100					
		Light brown to light gray, SILT, some low plasticity Clay, little fine Gravel, trace fine to coarse sand; moist to dry (very stiff).			12 ft recovery
105					

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-057a	**48.391837**	**-114.158263**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Light brown to light gray, SILT, some low plasticity Clay, little fine Gravel, trace fine to coarse sand; moist to dry (very stiff). *(continued)*		0.0	
115		Light brown to light gray, SILT, some high plasticity Clay, little fine to coarse Gravel and fine to coarse Sand; dry (stiff).		0.0	7" Conductor casing set to 113 ft bls 13 ft recovery
120		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel and high plasticity Clay, trace cobble; moist (stiff).		0.0	
125	Bentonite Plug				
130	#2 Sand	Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little high plasticity Clay, trace cobble; moist to wet (medium stiff).		0.0	14 ft recovery
135	10' of 20-Slot Schedule 40 PVC Screen				
140	Well Plug				16 ft recovery
145					
150				0.0	
155	Bentonite				
160		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little high plasticity Clay; moist to wet (stiff).		0.0	15 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-057a	**48.391837**	**-114.158263**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165	Bentonite	Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little high plasticity Clay; moist to wet (stiff). *(continued)*			
170		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel and high plasticity Clay, trace cobble; moist to wet (stiff).			15 ft recovery
175	Grout				
180				0.0	
185		Dark orange-brown, fine to coarse SAND and SILT, some high plasticity Clay and fine to coarse Gravel; moist (stiff).			15 ft recovery
190				0.0	
195					
200		Dark orange-brown, fine to coarse SAND and SILT, some high plasticity Clay and fine to coarse Gravel; moist to wet (stiff).			15 ft recovery
205					
210				0.0	
215				0.0	5 ft recovery
220		Brown, SILT AND CLAY, some fine to coarse SAND and fine to coarse Gravel, trace cobble; dry (very stiff).			

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-057a	**48.391837**	**-114.158263**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
				0.0	15 ft recovery
225		Dark orange-brown, fine to coarse GRAVEL and SILT, some Cobble, little fine to coarse Sand; wet (medium dense).			
230				0.0	
235	Grout				
240		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little Cobble and high plasticity Clay; moist to wet (stiff).		0.0	15 ft recovery
245					
250					
255		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little Cobble and high plasticity Clay; moist (stiff).		0.0	10 ft recovery
260					
265		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel and high plasticity Clay, little Cobble; dry (stiff).		0.0	10 ft recovery
270		Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay, little Cobble; moist (stiff).		0.0	
275					13 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-057a	**48.391837**	**-114.158263**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **A. Hoffmann**	**Columbia Falls, Montana**

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS	
280			Dark orange-brown, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay, little Cobble; moist (stiff). *(continued)*		0.0		280
285	Grout					16 ft recovery	285
290							290
295					0.0		295
300						End of boring at 300 ft bls	300

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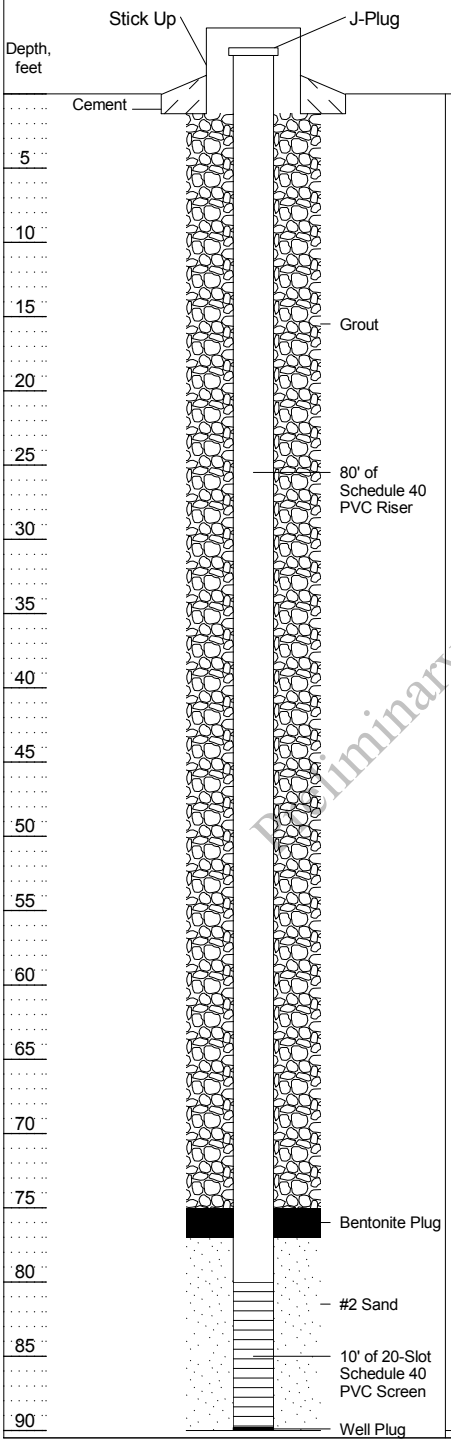
WELL CONSTRUCTION LOG

WELL NO. **CFMW-059**	LATITUDE **48.387677**	LONGITUDE **-114.158213**		
PROJECT NO./NAME **2476.0001Y002 / CFAC RI/FS Phase 1**		LOCATION **2000 Aluminum Drive Columbia Falls, Montana**		
APPROVED BY **A. Muscietta**	LOGGED BY **A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER **Cascade Drilling / Carlos Anguiano**		GEOGRAPHIC AREA **Aluminum City**		
DRILL BIT DIAMETER/TYPE **6-in. / Sonic Bit**	BOREHOLE DIAMETER **6-inches**	DRILLING EQUIPMENT/METHOD **Truck Mounted / Rotosonic**	SAMPLING METHOD **Continuous Core**	START-FINISH DATE **7/26/16-7/27/16**
CASING MAT./DIA. **SCH 40 PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Refer to geologic log for adjacent deep monitoring well CFMW-059a for lithology.			

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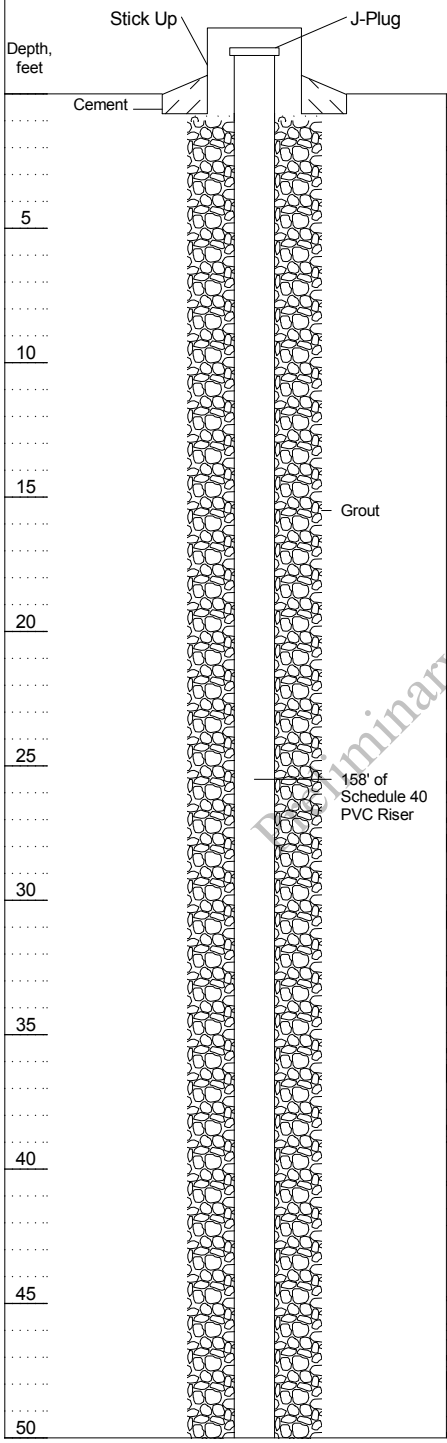
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE		
CFMW-059a	**48.387708**	**-114.158134**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A. Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Carlos Anguiano		**Aluminum City**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Truck Mounted / Rotosonic**	**Continuous Core**	**7/22/16-7/26/16**
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 2-inch	TYPE **Slotted** MAT. **SCH 40 PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**			



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine to coarse SAND, little fine to medium Gravel and Silt; moist.		0.0	5 ft recovery
	Brown, fine to coarse SAND and fine to medium GRAVEL; dry.		0.0	Sample CFMW-059a-SO-0-0.5 and CFMW-059a-SO-0-0.5-Pb collected
5	Brown, fine GRAVEL, some fine to coarse Sand and medium to coarse Gravel; dry.		0.0	Sample CFMW-059a-SO-0.5-2 collected
	Brown, fine GRAVEL, some fine to coarse Sand and medium to coarse Gravel; moist.			10 ft recovery
			0.0	
10				
	Brown, fine to coarse SAND and fine to coarse GRAVEL, trace cobble; dry.		0.0	
	COBBLE (pulverized); dry.			Sample CFMW-059a-SO-10-12 collected
15				
			0.0	
				6 ft recovery
			0.0	
20				
	Brown, medium GRAVEL, trace fine to coarse sand; dry.			
25			0.0	
	Brown, fine to coarse GRAVEL, some Cobble (whole and pulverized), little fine to coarse Sand; dry (loose).			7 ft recovery
30				
			0.0	
35				
				10 ft recovery
			0.0	
40	Brown, fine to coarse SAND and fine to medium GRAVEL, some Cobble (whole and pulverized); dry (loose).			
			0.0	
45				
	Brown, fine to coarse GRAVEL, some Cobble (pulverized), little fine to coarse Sand; dry (loose).			8 ft recovery
50				

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-059a	**48.387708**	**-114.158134**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
			0.0	
	Brown, fine to coarse SAND, some fine to coarse Gravel; dry (loose).			
55			0.0	
				10 ft recovery
			0.0	
	Brown, fine to medium SAND; moist.			
60			0.0	
65				
	Grout			
	Brown, fine SAND; moist.			10 ft recovery
70			0.0	
75	Brown, fine SAND, trace silt; wet.		0.0	
	158' of Schedule 40 PVC Riser			
	Brown, fine to medium SAND; wet.			15 ft recovery
80			0.0	
85				Sample CFMW-059a-SO-79-84 collected
90				
				15 ft recovery
95				
100			0.0	
105				
				15 ft recovery

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-059a	**48.387708**	**-114.158134**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
110		Brown, fine to medium SAND; wet. *(continued)*			
115		Brown-gray, fine SAND and SILT; wet (medium stiff).		0.0	
120	Grout				15 ft recovery
125				0.0	
130		Brown-gray, fine SAND and SILT, little high plasticity Clay; wet (medium stiff).		0.0	
135					15 ft recovery
140		Light gray to light brown, fine SAND and SILT, some high plasticity Clay; moist to wet (stiff).			
145					
150					15 ft recovery
155	Bentonite Plug			0.0	
160	#2 Sand 10' of 20-Slot Schedule 40 PVC Screen	Brown, coarse SAND, little Silt and fine to medium Sand, trace fine to coarse gravel and cobble; wet.		0.0	

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-059a	**48.387708**	**-114.158134**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
165					165
		Orange-yellow, fine to coarse SAND and SILT, some fine to coarse Gravel and Clay; moist to wet (stiff).			15 ft recovery
170				0.0	170
175					175
180					180
					15 ft recovery
185					185
190				0.0	190
195					195
		Brown to dark-orange, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay, little Cobble; moist to wet (stiff).			15 ft recovery
200				0.0	200
205					205
210					210
		Brown, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay, little Cobble; moist to wet (stiff).			11 ft recovery
215				0.0	215
220					220

Well Plug

Bentonite

Grout

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-059a	**48.387708**	**-114.158134**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
225		Brown, fine to coarse SAND and SILT, some fine to coarse Gravel and low plasticity Clay, little Cobble; moist to wet (stiff). *(continued)*			15 ft recovery
230				0.0	
235	Grout				
240					16 ft recovery
245				0.0	
250					
255		Brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little Clay and Cobble; moist to wet (stiff).			11 ft recovery
260				0.0	
265					15 ft recovery
270				0.0	
275					

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WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-059a	**48.387708**	**-114.158134**
PROJECT NO./NAME		LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**
A. Muscietta	**A. Hoffmann**	

Depth, feet		Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
280			Brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little Clay and Cobble; moist to wet (stiff). *(continued)*			280
						7 ft recovery
					0.0	
285						285
	Grout		Gray, BOULDER; wet.		0.0	
			Brown, fine to coarse SAND, some fine to coarse Gravel, Silt and Cobble (pulverized); dry (dense).			5 ft recovery
290					0.0	290
			Brown, fine to coarse SAND and SILT, some fine to coarse Gravel, little Clay, trace cobble (pulverized); dry (dense).			4 ft recovery
295					0.0	295
						4 ft recovery
					0.0	
300						End of boring at 300 ft bls 300

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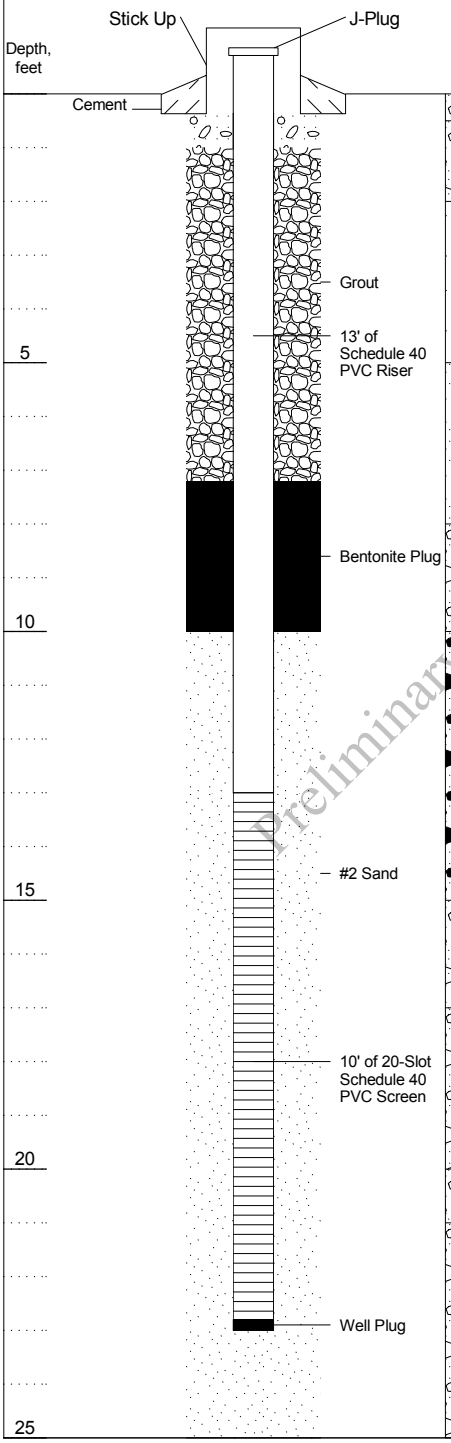
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-061	**48.387514**	**-114.132974**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **South Percolation Ponds**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**7/12/16-7/13/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Dark brown, fine SAND, some fine to coarse Gravel, little Cobble, trace silt; moist (loose).		0.6	4 ft recovery
	Brown, fine SAND, some fine to coarse Gravel, little Cobble, trace silt; moist (loose).		1.3	Sample CFMW-061-SO-0-0.5 and CFMW-061-SO-0-0.5-Pb collected
	Light to dark brown, SILT, some fine Sand, trace organic roots; moist (dense).		1.0	Sample CFMW-061-SO-0.5-2 collected
5	Light brown, SAND and SILT, trace fine gravel; moist (stiff).		2.5	5 ft recovery
	Brown, medium to coarse GRAVEL, some fine to medium Sand, little Cobble; wet (loose).		0.3	
10	Brown, fine to coarse GRAVEL, some fine Sand, little Cobble, trace silt; wet (medium dense).		0.6	4 ft recovery
			1.5	
15	Brown, fine to medium SAND, some fine to coarse Gravel and Boulder, little Silt; wet (medium dense).		0.2	5 ft recovery
	Brown, fine to medium GRAVEL, some fine to medium Sand, little Cobble, trace silt; wet (loose).		1.0	
20	Brown to red, medium to coarse SAND, little fine Gravel, trace cobble; wet (loose).		0.2	5 ft recovery
	Brown to red, coarse GRAVEL, some medium to coarse Sand and Cobble, trace silt; wet (loose).		1.2	
25				End of boring at 25 ft bls

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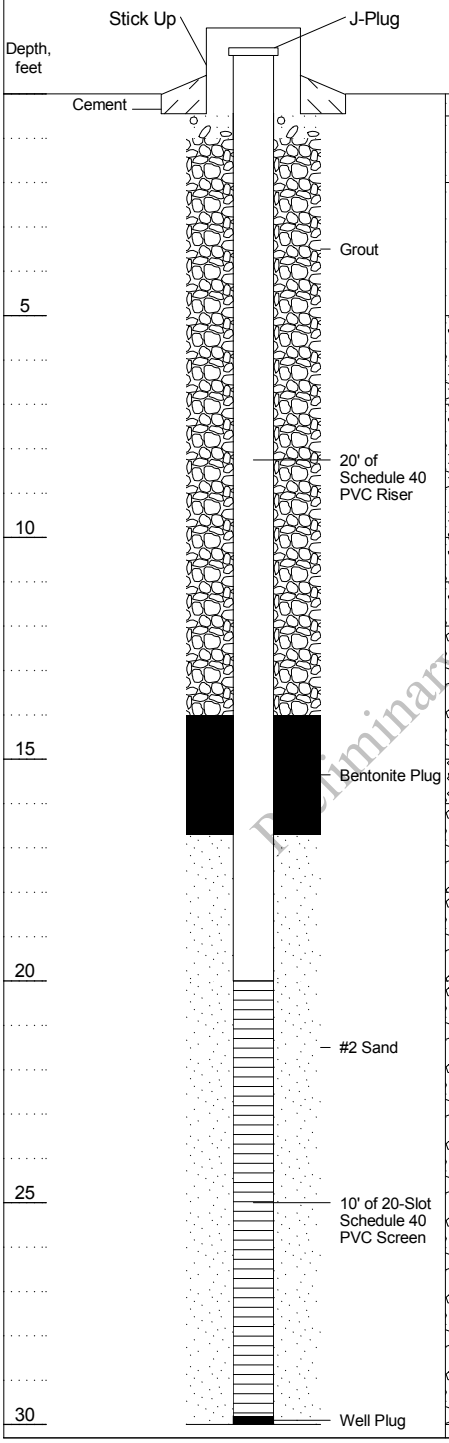
WELL CONSTRUCTION LOG

WELL NO.	LATITUDE	LONGITUDE
CFMW-064	**48.387453**	**-114.128888**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A. Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Jeremiah Charlton**	GEOGRAPHIC AREA: **South Percolation Ponds**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6-in. / Sonic Bit	**6-inches**	**Track Mounted / Rotosonic**	**Continuous Core**	**7/11/16-7/11/16**

CASING MAT./DIA.	SCREEN: TYPE	MAT.	TOTAL LENGTH	DIA.	SLOT SIZE
SCH 40 PVC / 2-inch	**Slotted**	**SCH 40 PVC**	**10.0**ft	**2-inch**	**20-Slot**



Depth, feet	Visual Description	PID Values (ppm)	REMARKS
	Dark brown, fine SAND, little Silt, trace fine gravel, cobble and organic roots; moist.	2.5	4 ft recovery
	Light brown, fine SAND, trace silt; moist (loose).	0.4	Sample CFMW-064-SO-0-0.5 and CFMW-064-SO-0-0.5-Pb collected
	Light brown with red tint, fine SAND, little Silt, trace organic roots; moist (dense).	0.2	Sample CFMW-064-SO-0.5-2 collected
5	Brown with red tint, fine SAND, little fine to coarse Gravel, trace cobble and silt; moist (loose).	0.2	5 ft recovery
	Red-brown to light gray, fine SAND, some fine to coarse Gravel, little Cobble and Crushed rock; dry to moist (loose).	0.3	
10	Brown, fine SAND, little fine to medium Gravel, trace cobble; moist (loose).	1.6	4 ft recovery
	Brown with red tint, fine SAND, some fine to medium Gravel, trace cobble; dry (loose).		
	Brown, fine to medium GRAVEL, some fine Sand and Cobble; wet (medium dense).	0.0	Sample CFMW-064-SO-10-12 collected
15	Brown, fine to coarse SAND, little fine Gravel, trace cobble; wet (loose).	0.0	3 ft recovery
	Brown to gray, fine to medium GRAVEL, some fine to medium Sand, little Cobble; wet (loose).	0.0	
	Gray to brown, fine GRAVEL, some fine to medium Sand, little Cobble; wet (loose).	0.1	
20	Gray to brown, fine to medium GRAVEL, some fine to medium Sand, little Cobble, trace silt; wet (medium dense).	0.1	5 ft recovery
25		0.1	5 ft recovery, some orange staining
30			End of boring at 30 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-001	**48.40140456**	**-114.1363646**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/25/16-5/25/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay, trace gravel and organics; moist.			2 ft recovery
		Brown, fine to coarse SAND, some Gravel, trace silt; moist.		1.9	Sample CFSB-001 0-0.5 collected
1					1
				1.1	Sample CFSB-001 0.5-2 collected
2					2
		Brown, GRAVEL and SAND, trace silt; moist.			1.5 ft recovery
3					3
4				3.7	4
5					5
					4 ft recovery
6					6
7					7
8				4.0	8
9					9
10					10
					2 ft recovery
11					11
				1.2	Sample CFSB-001 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-002	**48.40043586**	**-114.1369323**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/25/16-5/25/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, SILT, some Sand, little Gravel, trace organics; moist.			1.25 ft recovery
		Brown, fine to coarse SAND, some Gravel and Silt; moist.		0.0	Sample CFSB-002 0-0.5 collected
1					
				1.6	Sample CFSB-002 0.5-2 collected
2		Brown, fine to coarse SAND and GRAVEL, some Organics, trace silt; moist.			3 ft recovery, 8 inches of wood fragment
3					
4				1.2	
5		Brown, GRAVEL and SAND; moist.			3.75 ft recovery
6					
7					
8				1.7	
9					
10					2 ft recovery
11				0.2	Sample CFSB-002 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-003	**48.40053161**	**-114.1334427**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/25/16-5/25/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay; moist.			2 ft recovery
		Brown, SAND and GRAVEL, trace silt; moist.			
		Brown, SAND, some Gravel, trace silt; moist.		3.1	Sample CFSB-003 0-0.5 collected
1					
				3.9	Sample CFSB-003 0.5-2 collected
2					
		Brown, SAND, little Gravel, trace silt; moist.			0.5 ft recovery
3					
4				20.3	
5					
		Brown, GRAVEL, some Silt and Sand; moist.			2.5 ft recovery
6					
7					
8				2.4	
9					
		Brown, GRAVEL, some Sand, trace silt; moist.			
10					
		Brown, fine to coarse SAND, trace silt and gravel; moist.			2 ft recovery
11				8.9	Sample CFSB-003 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-004	**48.39851125**	**-114.1366582**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Wet Scrubber Sludge Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/25/16-5/25/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark brown, fine to coarse SAND and GRAVEL, trace organics; moist.			1.25 ft recovery, black carbon material
				0.9	Sample CFSB-004 0-0.5 collected
1					
				4.5	Sample CFSB-004 0.5-2 collected
2					
		Brown, fine to coarse SAND and GRAVEL; moist.			1.0 ft recovery
3					
4				0.0	
5					
					1.65 ft recovery
6					
7					
8				0.0	
9					
10					
					1.0 ft recovery
11					
				0.0	Sample CFSB-004 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-005	**48.39982807**	**-114.133338**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/25/16-5/25/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay, little Gravel; moist.			2 ft recovery
		Brown, GRAVEL, little Sand, trace silt; moist.		1.9	Sample CFSB-005 0-0.5 collected
1					1
				2.3	Sample CFSB-005 0.5-2 collected
2					2
		Brown, SAND and GRAVEL; moist to wet.			1.5 ft recovery
3					3
4				1.9	4
5					5
		Brown, GRAVEL, some Sand, trace silt; moist to wet.			2.5 ft recovery
6					6
7					7
8				1.9	8
9					9
10					10
		Brown, GRAVEL and SAND, some Silt; moist to wet.			1.0 ft recovery
11					11
				1.1	Sample CFSB-005 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-006	**48.39981807**	**-114.130684**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North Leachate Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to gray, fine to coarse SAND, some Gravel, little Silt, trace cobble; moist.		0.0	2 ft recovery Sample CFSB-006 0-0.5 collected
				0.0	Sample CFSB-006 0.5-2 collected
		Brown, fine to medium SAND, little Gravel, trace cobble; moist.		0.0	1.5 ft recovery
5		Brown, SAND and GRAVEL, trace cobble and silt; moist.		0.0	2.5 ft recovery
10		Brown, fine to coarse SAND, some Gravel, trace silt; moist.		0.0	1.5 ft recovery Sample CFSB-006 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-007	**48.3981463**	**-114.1346168**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Wet Scrubber Sludge Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/25/16-5/25/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL and SAND, little Silt, trace organics; moist.			1.25 ft recovery
		Brown, GRAVEL and SAND, little Silt; moist.		6.3	Sample CFSB-007 0-0.5 collected
1					
				1.7	Sample CFSB-007 0.5-2 collected
2		Brown, fine to medium SAND and SILT; moist.			1.5 ft recovery
3					
4					
5		Brown, SILT, little Sand; moist.			5 ft recovery
6					
7					
8				1.1	
9		Gray-brown, SAND, some Gravel, little Silt; moist.			
10		Brown, GRAVEL and SAND, trace silt; moist.			1.0 ft recovery
11				4.2	Sample CFSB-007 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-008	**48.3982978**	**-114.1299972**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**East Landfill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to medium SAND, some Silt, little Gravel, trace cobble; moist.		0.0	2 ft recovery Sample CFSB-008 0-0.5 collected
				0.0	Sample CFSB-008 0.5-2 collected
		No recovery.			No recovery
5					5
		Brown, fine SAND, some Silt, little Gravel; moist.		0.0	2 ft recovery
		Gray, GRAVEL, some fine to coarse Sand; moist.		0.0	
10					10
		Brown, fine to medium SAND, some Silt, little Gravel and Crushed rock, trace cobble; moist.		0.0	2.5 ft recovery Sample CFSB-008 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-009	**48.39759241**	**-114.1290949**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **South Leachate Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, SAND and SILT, some Gravel, trace cobble; moist.			2 ft recovery
		Brown, fine to coarse SAND, some Gravel, little Silt, trace cobble; moist.		0.1	Sample CFSB-009 0-0.5 collected
				0.0	Sample CFSB-009 0.5-2 collected
		Brown, SILT and fine SAND, some Gravel, trace cobble; moist.			1.5 ft recovery
				0.0	
5					2.5 ft recovery
		Dark brown, SILT, trace gravel; moist.			
10		Dark brown, SILT and GRAVEL; wet.			2.5 ft recovery
					Sample CFSB-009 10-12 collected
		Dark brown, SILT, trace fine sand and gravel; moist.		0.0	
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-010	**48.39491396**	**-114.1359679**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Fueling Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/21/16-5/21/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt.			2 ft recovery
		Brown, fine to coarse SAND and GRAVEL, trace clay; moist.		0.0	Sample CFSB-010 0.5-2 collected
					3 ft recovery
				0.0	
5					
				0.0	
10					
		Brown, fine to medium SAND and GRAVEL, trace silt; moist.			1 ft recovery
				0.0	Sample CFSB-010 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-011	**48.39852537**	**-114.1435572**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Mason**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **North-West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/19/16-5/19/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay, little Cobble and Orgaincs; moist.			Recovery not noted
		Dark brown to tan, fine SAND and SILT, some Clay and Gravel; moist.		0.2	Sample CFSB-011 0-0.5 collected
				4.6	Sample CFSB-011 0.5-2 collected
		Brown, GRAVEL; moist.			Recovery not noted
5		Dark brown, GRAVEL and medium to coarse SAND; moist.			1 ft recovery
				1.4	
10					Recovery not noted
		Dark brown, GRAVEL and medium to coarse SAND; wet.		0.0	Sample CFSB-011 10-12 collected
		Dark brown, GRAVEL and medium to coarse SAND; moist.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-012	**48.39488328**	**-114.1356066**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Fueling Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/28/16-5/28/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt.			
		Brown, GRAVEL, some fine to medium Sand; moist.			1.5 ft recovery
1					
				10.4	Sample CFSB-012 0.5-2 collected
2		Brown, GRAVEL and fine to coarse SAND, little Silt; moist.			3 ft recovery
3					
4				5.3	
5					5 ft recovery
6					
7					
8				6.4	
9					
10					2 ft recovery
11				4.6	Sample CFSB-012 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-013	**48.39762553**	**-114.1455486**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Mason**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **North-West Percolation Pond**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/19/16-5/19/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay, little Gravel; moist		0.0	Recovery not noted Sample CFSB-013 0-0.5 collected
				0.0	Sample CFSB-013 0.5-2 collected Recovery not noted
		Brown, GRAVEL and SAND; moist.			
5					Recovery not noted
				0.0	
10					Recovery not noted
				0.0	Sample CFSB-013 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-014	**48.39794933**	**-114.1440902**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North-West Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, SILT; moist.			Recovery not noted
		Brown, fine to coarse SAND and GRAVEL; moist.		0.0	Sample CFSB-014 0-0.5 collected
		Brown, GRAVEL and fine to coarse SAND, some Cobble, trace silt; moist.		8.4	Sample CFSB-014 0.5-2 collected
					Recovery not noted
				0.0	
5		Brown, fine to coarse SAND and GRAVEL; wet to moist.			2.5 ft recovery
				0.0	
		Tan, SILT and fine SAND, little fine to coarse Gravel; wet.			
10		Brown, fine to coarse SAND and GRAVEL, trace silt; wet.			5 ft recovery
				0.0	Sample CFSB-014 10-12 collected
		Tan, SILT and fine to coarse SAND, little fine to coarse Gravel; wet.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-016	**48.39710383**	**-114.1437944**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North-West Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, SILT; wet.			Recovery not noted
		Brown, fine to coarse SAND and GRAVEL; wet.		8.8	
1		Tan to brown, fine to coarse SAND and GRAVEL; wet.			Sample CFSB-016 0-0.5 collected 1.5 ft recovery
				7.3	
2					Sample CFSB-016 0.5-2 collected
		Brown, fine to coarse SAND and GRAVEL, trace silt and cobble; wet.			Recovery not noted
3					
4				4.0	
5					
		Light brown, SILT, some fine to coarse Sand and fine to medium Gravel; moist.			Recovery not noted
6					
7					
8				8.8	
9					
10					
		Tan, SILT, some fine to coarse Sand, little fine to coarse Gravel and Clay; moist.			Recovery not noted, refusal at 14 ft
11				0.0	Sample CFSB-016 10-12 collected
12					
13					
14					Boring completed at 14 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-019	**48.39712707**	**-114.141199**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Overflow Ditch**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/13/16-6/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to coarse SAND, trace gravel; moist.			2 ft recovery
		Brown to dark brown, fine to coarse SAND, little Gravel and Cobble; moist.		0.0	Sample CFSB-019 0-0.5 collected
					2 ft recovery
				0.0	Sample CFSB-019 0.5-2 collected
		No recovery.			No recovery, hammer cap and pull cap broken
5					
					No recovery, hammer cap and pull cap broken
10					
		Brown, fine to medium SAND and fine to coarse GRAVEL, trace silt and clay; moist.			5 ft recovery
				0.0	Sample CFSB-019 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-021	**48.39766978**	**-114.137707**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive Columbia Falls, Montana**		
APPROVED BY	LOGGED BY			
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Overflow Ditch**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to coarse SAND, some Gravel, little Silt, trace cobble; moist.			2 ft recovery
		Brown, fine to coarse SAND, some Gravel, little Cobble, trace silt; moist.		0.0	Sample CFSB-021 0-0.5 collected
1					1
				0.0	Sample CFSB-021 0.5-2 collected
2					2
		Brown, medium to coarse SAND, some Gravel, trace cobble; moist.			1.5 ft recovery
3					3
4				0.0	4
5					5
		Brown, fine to coarse SAND, little Gravel andSilt, trace cobble; moist.			2.5 ft recovery
6					6
7					7
8				0.0	8
9					9
10					10
		Brown to gray, fine to coarse SAND, some Gravel, little Silt, trace cobble; moist.			1 ft recovery
11					11
				0.0	Sample CFSB-021 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-022	**48.39723994**	**-114.1368046**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North-East Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, medium to coarse SAND, some Gravel, little Silt, trace cobble; moist.			2 ft recovery
		Brown, fine to coarse SAND, some Gravel, trace cobble and silt; moist.		0.0	Sample CFSB-022 0-0.5 collected
1					1
				0.0	Sample CFSB-022 0.5-2 collected
2					2
		Gray, GRAVEL and fine to coarse SAND, some Crushed rock, trace silt and cobble; moist.			1.5 ft recovery
3					3
4				0.0	4
5					5
		Gray, fine to coarse SAND and GRAVEL, some Crushed rock, little Cobble, trace silt; moist.			2.5 ft recovery
6					6
7					7
8				0.0	8
9					9
10					10
		Brown to gray, fine to coarse SAND and GRAVEL, trace cobble and silt; moist.			1 ft recovery
11				0.0	11 Sample CFSB-022 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-025	**48.39689643**	**-114.1361463**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North-East Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/13/16-6/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, SILT and CLAY; moist.		2.4	Recovery not noted Sample CFSB-025 0-0.5 collected
				0.4	Sample CFSB-025 0.5-2 collected Recovery not noted
5		Brown, fine to medium SAND, trace fine gravel; moist.			Recovery not noted
				0.0	
10					Recovery not noted
				0.0	Sample CFSB-025 10-12 collected
		Brown, fine to medium SAND, trace fine gravel; wet.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-026	**48.39681297**	**-114.1366586**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North-East Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/13/16-6/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, CLAY; moist to wet.		6.5	Recovery not noted, petroleum/ coal tar pitch odor Sample CFSB-026 0-0.5 collected
				2.7	Sample CFSB-026 0.5-2 collected Recovery not noted
		Brown, fine to medium SAND, moist.			
		Brown, GRAVEL and SAND, little Silt; moist.			
5					Recovery not noted
				0.4	
10					Recovery not noted
				0.2	Sample CFSB-026 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-027	**48.39681615**	**-114.1376492**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Overflow Ditch**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/13/16-6/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to medium SAND and GRAVEL; moist.		0.0	Recovery not noted Sample CFSB-027 0-0.5 collected
				0.4	Recovery not noted, black layers interbedded Sample CFSB-027 0.5-2 collected Recovery not noted
5					
				0.0	Recovery not noted
10					
		Brown, fine to medium SAND and GRAVEL, trace silt; moist.		0.0	Recovery not noted Sample CFSB-027 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-028	**48.396531**	**-114.1366981**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive Columbia Falls, Montana**

APPROVED BY	LOGGED BY
A.Muscietta	**G. Davis**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Randy Darnell	**Influent Ditch**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/18/16-7/18/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL and SILT, some fine to coarse Sand, trace black sand; moist.			0.5 ft recovery
		Brown, GRAVEL and fine to coarse SAND, little Silt; moist.			Sample CFSB-028 0-0.5 collected
1					0.75 ft recovery
					Sample CFSB-028 0.5-2 collected
2					1.5 ft recovery
3					
4				0.0	
5		Brown, GRAVEL and SAND, some Silt; moist to wet.			2.5 ft recovery
6					
7					
8				1.0	
9					
10					1 ft recovery
11				0.8	Sample CFSB-028 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-029	**48.39683325**	**-114.1353518**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**North-East Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, SAND, some Gravel, trace silt and fine to coarse sand; moist.			2 ft recovery
		Brown, medium to coarse SAND, some Gravel, little Cobble, trace silt; moist.		0.1	Sample CFSB-029 0-0.5 collected
				0.0	Sample CFSB-029 0.5-2 collected
					1 ft recovery
				0.0	
5					2.5 ft recovery
				0.0	
10					1 ft recovery
				0.0	Sample CFSB-029 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-030	**48.39637665**	**-114.1358541**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Influent Ditch**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/13/16-6/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark brown, fine to medium SAND, little Silt and Organics; moist.			Recovery not noted
		Brown, fine to medium SAND, trace silt and orgaincs; moist.		0.0	Sample CFSB-030 0-0.5 collected
				0.0	Sample CFSB-030 0.5-2 collected
		Brown to gray, fine to medium SAND and fine to coarse GRAVEL; moist.			Recovery not noted
5					
					Recovery not noted
				0.0	
10					
					Recovery not noted
					Sample CFSB-030 10-12 collected
		Brown to gray, fine to medium SAND and fine to coarse GRAVEL; moist to wet.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-033	**48.39678243**	**-114.1343746**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Operational Grid**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/23/16-5/23/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Gravel, trace cobble and silt; moist.			2 ft recovery
		Dark brown, fine to coarse SAND, some Gravel, trace cobble; moist.		0.0	Sample CFSB-033 0-0.5 collected
				0.0	Sample CFSB-033 0.5-2 collected 2.5 ft recovery
				0.0	
5					2 ft recovery
		Brown, fine to coarse SAND, some Silt and Gravel; moist.		0.0	
		Brown, fine to medium SAND, little Gravel, trace silt; moist.		0.0	
10		Brown, fine to coarse SAND, little Gravel and Silt; moist.			2.25 ft recovery
				0.0	Sample CFSB-033 10-12 collected
		Light brown to gray, fine to medium SAND, some Crushed rock; moist.		0.0	
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-034	**48.39708658**	**-114.1330847**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Operational Grid**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/31/16-5/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and fine to coarse GRAVEL, trace silt; moist.		0.0	Recovery not noted Sample CFSB-034 0-0.5 collected
				0.0	Sample CFSB-034 0.5-2 collected 3 ft recovery
				0.0	
5		Brown, SAND, some Gravel; moist.			3 ft recovery
				0.0	
10		Brown, fine to coarse SAND and fine to coarse GRAVEL; moist.			3 ft recovery
				0.0	Sample CFSB-034 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-035	**48.39729602**	**-114.132482**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Operational Grid**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/31/16-5/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
		Brown, fine to coarse SAND and fine to coarse GRAVEL, trace silt; moist.		0.0	2 ft recovery Sample CFSB-035 0-0.5 collected	
				0.0	Sample CFSB-035 0.5-2 collected 3 ft recovery	
5		Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt, trace clay; moist.			2 ft recovery	5
				0.0		
10		Brown, fine to coarse SAND, some fine to coarse Gravel and Silt; moist.			2.5 ft recovery, interbedded with black silt layer	10
				0.0	Sample CFSB-035 10-12 collected	
15					Boring completed at 15 ft bls	15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-036	**48.39658604**	**-114.1327645**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **C. Arendt**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Operational Grid**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/31/16-5/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown to brown, fine to coarse SAND and fine to coarse GRAVEL, little Silt; moist.			Recovery not noted
		Brown, fine to coarse SAND, some fine to coarse Gravel, trace silt; moist.		0.0	Sample CFSB-036 0-0.5 collected
				0.0	Sample CFSB-036 0.5-2 collected
		Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; moist.			Recovery not noted
				0.0	
5		Brown, fine to coarse SAND, some fine to coarse Gravel, trace silt; moist.			2.5 ft recovery
				0.0	
		Brown, fine to coarse SAND, little Silt; moist.			
10		Brown, fine to coarse SAND, trace fine to coarse gravel; moist.			Recovery not noted
				0.0	Sample CFSB-036 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-037	**48.39656263**	**-114.1307193**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Operational Grid**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/31/16-5/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and fine to coarse GRAVEL, trace silt; moist.		0.0	2 ft recovery Sample CFSB-037 0-0.5 collected
				0.0	Sample CFSB-037 0.5-2 collected
		Brown, fine to coarse SAND and fine to coarse GRAVEL, some Silt; moist.		0.0	2 ft recovery
5					5
		No recovery.			No recovery
10					10
		Brown, fine to coarse SAND, some fine to coarse Gravel, trace silt; moist.		0.0	5 ft recovery Sample CFSB-037 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-038	**48.39598165**	**-114.1399011**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/21/16-5/21/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark brown, fine to coarse SAND and GRAVEL, trace organics; moist.			2 ft recovery
		Brown, fine to coarse SAND and GRAVEL; moist.		0.0	Sample CFSB-044 0-0.5 collected
					Black staining
				0.0	Sample CFSB-044 0.5-2 collected
					0.5 ft recovery
				0.0	
5					
					Recovery not noted
				0.0	
10					
		Brown, GRAVEL and medium to coarse SAND; moist.			2.5 ft recovery
				0.0	Sample CFSB-044 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-040	**48.39574983**	**-114.1368196**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**

APPROVED BY	LOGGED BY	
A.Muscietta	**S. Mason**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Randy Darnell	**Paste Plant**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/20/16-5/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL and fine to coarse SAND; moist.		0.0	2 ft recovery, black staining Sample CFSB-040 0-0.5 collected
				6.1	Black staining Sample CFSB-040 0.5-2 collected Recovery not noted
		Brown, GRAVEL, some Sand; moist.		6.3	
5		Brown, SAND and GRAVEL; moist.			Recovery not noted, no staining
				5.6	
10					4 ft recovery
				4.1	Sample CFSB-040 10-12 collected Black staining
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-042	**48.39600743**	**-114.1357634**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/20/16-5/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to gray, SAND and GRAVEL, trace clay; moist.			2 ft recovery
		Red-brown, GRAVEL and medium to coarse SAND; moist.		2.4	Sample CFSB-042 0-0.5 collected
				4.1	Sample CFSB-042 0.5-2 collected 0.5 ft recovery
5					Recovery not noted
		Brown, fine to coarse SAND; moist.			
		Variegated, GRAVEL, some fine to medium Sand; moist.		4.9	
10					Recovery not noted
				3.6	Sample CFSB-042 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-044	**48.39589607**	**-114.1350592**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Mason**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Paste Plant**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/20/16-5/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark brown, GRAVEL, some Sand, trace clay; moist.		0.0	2 ft recovery, black staining Sample CFSB-044 0-0.5 collected
				0.0	Sample CFSB-044 0.5-2 collected
		Brown, GRAVEL, some fine to medium Sand, trace clay; moist.			Recovery not noted
5					0.5 ft recovery
				4.0	
10					Recovery not noted
		Brown, fine to coarse SAND, little Gravel; moist.		2.5	Sample CFSB-044 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-045	**48.39556691**	**-114.135881**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/21/16-5/21/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Gravel, trace black coal tar pitch; moist.		0.0	Recovery not noted Sample CFSB-045 0-0.5 collected
				0.0	Sample CFSB-045 0.5-2 collected Recovery not noted
		Brown, fine to coarse SAND, some Gravel; moist.			
5					Recovery not noted
				0.0 0.0	
		Brown, fine to medium SAND, trace gravel; dry.			
10		Brown to dark gray, SAND and GRAVEL; dry.			4 ft recovery, Gray to black staining
				0.0	Sample CFSB-045 10-12 collected
		Brown, GRAVEL and SAND; dry.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-046	**48.39577059**	**-114.1353176**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Mason**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Paste Plant**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/20/16-5/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL, some fine to coarse Sand; moist.		3.5	2 ft recovery Sample CFSB-046 0-0.5 collected
				4.9	Sample CFSB-046 0.5-2 collected Recovery not noted
		Brown, fine to medium SAND, some Gravel; moist.			
5		Brown, fine to medium SAND and GRAVEL; moist.			Recovery not noted
				5.5	
10		Brown, fine to medium SAND, trace gravel; moist.			0.5 ft recovery
				0.0	Sample CFSB-046 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-048	**48.39574049**	**-114.1345257**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/20/16-5/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay and Gravel, trace orgaincs; moist.			Recovery not noted
		Dark brown, GRAVEL, some Sand and Clay, trace orgaincs; moist.		2.6	Sample CFSB-048 0-0.5 collected
				5.2	Sample CFSB-048 0.5-2 collected
					Recovery not noted
		Brown, fine to medium SAND, trace gravel; moist.			
5					Recovery not noted
		Brown, fine to medium SAND, little Gravel; moist.		6.1	
10					Recovery not noted
				0.0	Sample CFSB-048 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-049	**48.39548299**	**-114.1338847**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/28/16-5/28/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt.			
1		Brown, GRAVEL and fine to coarse SAND, little Silt; moist.		2.4	1 ft recovery Sample CFSB-049 0.5-2 collected
2		Brown, GRAVEL and fine to medium SAND, trace silt; moist.			1 ft recovery
3					
4				4.5	
5		Brown, fine to medium SAND, some Gravel, little Silt; moist.			0.5 ft recovery
6					
7					
8				3.3	
9					
10		Brown, GRAVEL and fine to medium SAND, little Silt; moist.			1 ft recovery
11				3.4	Sample CFSB-049 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-050	**48.39530717**	**-114.138023**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/21/16-5/21/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL and SAND; moist.			2 ft recovery
		Brown to dark brown, GRAVEL and SAND, little Clay; moist.		0.0	Sample CFSB-050 0-0.5 collected
					White, fibrous material
				0.0	Sample CFSB-050 0.5-2 collected
		Brown, GRAVEL, little fine to coarse Sand; moist.			0.5 ft recovery
				0.0	
5		Brown, GRAVEL and fine to coarse SAND; moist.			Recovery not noted
				0.0	
10					3 ft recovery
				0.0	Sample CFSB-050 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-051	**48.39522792**	**-114.1372589**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/21/16-5/21/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL; moist.			2 ft recovery
		Brown to dark brown, fine to coarse SAND and GRAVEL; moist.		0.0	Black staining Sample CFSB-051 0-0.5 collected
				0.0	Sample CFSB-051 0.5-2 collected 1 ft recovery
				0.0	
5					2.5 ft recovery
				0.0	
10		Brown to gray, medium to coarse SAND and GRAVEL; moist.			3 ft recovery Sample CFSB-051 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-052	**48.39526414**	**-114.1358252**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Paste Plant**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/20/16-5/20/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Concrete.			Recovery not noted
		Tan, SAND and GRAVEL, trace silt; dry.		4.3	Sample CFSB-052 0.5-2 collected
		No recovery.			No recovery
5					5
		Brown, GRAVEL, some Sand; dry to moist.		1.9	2 ft recovery
10					10
		Brown, SAND and GRAVEL; moist.		5.3	3.5 ft recovery Sample CFSB-052 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-053	**48.39472275**	**-114.1356199**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Fueling Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/31/16-5/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt.			1 ft recovery
		Brown, fine to coarse SAND and GRAVEL, trace silt; wet to moist.		0.0	
				0.0	Sample CFSB-053 0.5-2 collected
					2 ft recovery
				0.0	
5					5
					1.5 ft recovery
				0.0	
10					10
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.			3 ft recovery
				0.0	Sample CFSB-053 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-054	**48.39505601**	**-114.1349626**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**

APPROVED BY	LOGGED BY	
A.Muscietta	**G. Davis**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Randy Darnell	**Fueling Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/28/16-5/28/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark gray, fine to coarse SAND and GRAVEL, little Silt; moist.			1.5 ft recovery
				3.3	Sample CFSB-054 0-0.5 collected
1					
				2.1	Sample CFSB-054 0.5-2 collected
2					
		Brown, GRAVEL, some fine to coarse Sand, trace silt; moist.			1 ft recovery
3					
				2.3	
4					
5					
					2 ft recovery
6					
7					
				2.0	
8					
9					
10					
					1 ft recovery
11					
				4.8	Sample CFSB-054 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-055	**48.39507121**	**-114.1342052**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Fueling Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/28/16-5/28/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark brown, fine to coarse SAND and GRAVEL, trace silt; moist.			1 ft recovery
		Bronw, fine to coarse SAND and GRAVEL, little Silt; moist to wet.		3.4	Sample CFSB-055 0-0.5 collected
1					1
				4.9	Sample CFSB-055 0.5-2 collected
2					2
		Brown, GRAVEL, some Sand, little Silt; moist to wet.			0.6 ft recovery
3					3
4				1.9	4
5					5
					2.5 ft recovery
6					6
7					7
8				2.2	8
9					9
10					10
		Brown, GRAVEL, some Sand; moist to wet.			1 ft recovery
11					11
				3.3	Sample CFSB-055 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-057	**48.39506141**	**-114.1331512**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **G. Davis**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Raw Materials Loading/Unloading Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/28/16-5/28/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, little Silt; moist.			1.5 ft recovery, 2" of black fine sand
		Brown to dark brown, fine to coarse SAND and GRAVEL; trace silt; moist.		1.2	Sample CFSB-057 0-0.5 collected
1					
				2.2	Sample CFSB-057 0.5-2 collected
2		Brown, GRAVEL and SAND, trace silt; moist.			1 ft recovery
3					
4				1.0	
5					1.6 ft recovery
6					
7					
8				0.8	
9					
10					1 ft recovery
11				1.2	Sample CFSB-057 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-059	**48.39504638**	**-114.1319922**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Raw Materials Loading/Unloading Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/28/16-5/28/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Silt and Gravel; moist.			1.25 ft recovery, black 1" thick layers
		Brown, fine to coarse SAND, some Gravel, little Silt; moist.		1.3	Sample CFSB-059 0-0.5 collected
1					1
				1.1	Sample CFSB-059 0.5-2 collected
2					2
		Brown, fine to coarse SAND and GRAVEL, little Silt; moist.			1.5 ft recovery
3					3
4				1.5	4
5					5
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist to wet.			2.5 ft recovery
6					6
7					7
8				1.8	8
9					9
10					10
		Brown, fine to coarse SAND and GRAVEL; moist to wet.			1.5 ft recovery
11					11
				2.5	Sample CFSB-059 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-060	**48.39499436**	**-114.1297174**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **G. Davis**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Main Plant Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/27/16-5/27/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL, little Sand, trace silt; moist.			1 ft recovery
				0.0	Sample CFSB-060 0-0.5 collected
1					
				0.0	Sample CFSB-060 0.5-2 collected
2					2 ft recovery
3					
4					
5					2.5 ft recovery
6					
7					
8				0.0	
9					
10					2 ft recovery
		Brown, GRAVEL and SAND, trace silt; moist to wet.			
11				0.0	Sample CFSB-060 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-062	**48.39415626**	**-114.1410678**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some fine to coarse Gravel, trace silt and orgaincs; moist.			Recovery not noted
		Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt, trace orgaincs; moist.		5.7	Sample CFSB-062 0-0.5 collected 1.5 ft recovery
1				1.9	Sample CFSB-062 0.5-2 collected
2		Brown, fine to coarse SAND and GRAVEL, little Cobble; moist.			1.5 ft recovery
3					
4				2.1	
5		Brown, fine to coarse SAND and GRAVEL, little Cobble, trace silt; moist.			3 ft recovery
6					
7					
8				2.2	
9					
10					4 ft recovery
11				9.8	Sample CFSB-062 10-12 collected
12					
13					
14					Boring completed at 14 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-064	**48.39400852**	**-114.1411079**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, SILT, some fine to coarse Sand and Gravel, little Organics; moist.		0.0	Recovery not noted
1					Sample CFSB-064 0-0.5 collected 1.2 ft recovery
				0.0	
2					Sample CFSB-064 0.5-2 collected
		Brown, fine to coarse SAND, little medium to coarse Gravel and Silt, trace organics; moist.			3 ft recovery
3					
4				0.0	
5					
		Brown, fine to coarse SAND and GRAVEL, little Cobble; moist.			1 ft recovery
6					
7					
8				0.0	
9					
10					
		Brown, fine to coarse SAND and GRAVEL, little Silt and Cobble; moist.			3 ft recovery
11				0.0	Sample CFSB-064 10-12 collected
12					
13					
14					Boring completed at 14 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-065	**48.39390367**	**-114.1405138**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**West Percolation Pond**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some fine to coarse Gravel, little Silt; moist.			Recovery not noted
		Brown, fine to coarse SAND and GRAVEL; moist.		1.8	Sample CFSB-065 0-0.5 collected
1					
		Dark brown, SILT, some fine to coarse Sand and Gravel, trace organics; moist.		8.0	Sample CFSB-065 0.5-2 collected
2					
		Brown, fine to coarse SAND and GRAVEL, little Silt, trace cobble; moist.			1 ft recovery
3					
4				2.2	
5					
		Brown, fine to coarse SAND, some fine to coarse Gravel and Cobble, trace silt; moist.			3.5 ft recovery
6					
7					
8				4.8	
9					
10					
		Brown, fine to coarse SAND and GRAVEL, little Cobble; moist.			4 ft recovery
11				4.1	Sample CFSB-065 10-12 collected
12					
13					
14					Boring completed at 14 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-066	**48.3932942**	**-114.129822**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/27/16-5/27/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.			1 ft recovery
		Brown, fine to coarse SAND and GRAVEL; moist.		0.0	Sample CFSB-066 0-0.5 collected
1					
				0.0	Sample CFSB-066 0.5-2 collected
2		Brown, fine to medium SAND, little Gravel; moist to wet.			1 ft recovery
3					
4				0.0	
5		No recovery.			No recovery
6					
7					
8					
9					
10		Brown, GRAVEL and SAND, little Silt; moist.			1.2 ft recovery
11				0.0	Sample CFSB-066 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-068	**48.39271427**	**-114.1298827**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/27/16-5/27/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt.			
1		Brown, fine to coarse SAND, little Gravel, trace silt; moist.		0.0	0.75 ft recovery Sample CFSB-068 0.5-2 collected
2		Brown, fine to coarse SAND, some Silt, little Gravel; moist.			1.5 ft recovery
3					
4				0.0	
5		Brown, GRAVEL and fine to coarse SAND; moist.			3 ft recovery
6					
7					
8				0.0	
9					
10		Brown, fine to coarse SAND, some Gravel, little Silt; moist.			0.8 ft recovery
11				0.0	Sample CFSB-068 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-069	**48.39209137**	**-114.1294442**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/27/16-5/27/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, little Silt; moist.			1.5 ft recovery
		Brown, fine to coarse SAND, some Gravel, trace silt; moist.		0.0	Sample CFSB-069 0-0.5 collected
1					
				0.0	Sample CFSB-069 0.5-2 collected
2		Brown, fine to coarse SAND, some Gravel; moist.			2 ft recovery
3					
4				0.0	
5		Brown, fine to coarse SAND and GRAVEL; moist.			2.5 ft recovery
6					
7					
8				0.0	
9					
10		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.			1 ft recovery
11				0.0	Sample CFSB-069 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-071	**48.39126322**	**-114.1295692**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/27/16-5/27/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, little Silt; moist.			1.5 ft recovery
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.		0.0	Sample CFSB-071 0-0.5 collected
1					1
				0.0	Sample CFSB-071 0.5-2 collected
2					2
		Brown to gray, fine to coarse SAND, some Gravel, trace silt; moist.			2.4 ft recovery
3					3
4				0.0	4
5					5
		Brown, fine to coarse SAND and SILT, some Gravel; moist.			4 ft recovery
6					6
7					7
8				0.0	8
9					9
10					10
		Brown, GRAVEL and fine to coarse SAND, little Silt; moist.			2 ft recovery
11				0.0	11 Sample CFSB-071 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-073	**48.39132727**	**-114.1312843**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/1/16-6/1/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to gray, fine to coarse SAND, some Gravel, trace silt; moist.			Recovery not noted
		Brown, fine to coarse SAND, little Gravel; moist.		0.0	Sample CFSB-073 0-0.5 collected
				0.1	Sample CFSB-073 0.5-2 collected
					Recovery not noted
				0.0	
5					Recovery not noted
		Brown, GRAVEL and fine to coarse SAND, little Cobble; moist.		0.0	
10					Recovery not noted
				0.0	Sample CFSB-073 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-074	**48.39133183**	**-114.1305445**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/1/16-6/1/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to dark brown, fine to coarse SAND, some Gravel, trace silt; moist.			Recovery not noted
		Light brown, GRAVEL, some fine to coarse Sand, trace silt; moist.		0.0	Sample CFSB-074 0-0.5 collected
				0.0	Sample CFSB-074 0.5-2 collected
					Recovery not noted
				0.0	
5					5
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.			Recovery not noted
				0.0	
10					10
		Gray to brown, GRAVEL and medium to coarse SAND, little Cobble; moist.			Recovery not noted
				0.0	Sample CFSB-074 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-075	**48.39114611**	**-114.1317985**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**

APPROVED BY	LOGGED BY	
A.Muscietta	**S. Mason**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Randy Darnell	**Rectifier Yards**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/1/16-6/1/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, little Silt, trace clay; moist.		0.0	1.8 ft recovery Sample CFSB-075 0-0.5 collected
				0.0	Sample CFSB-075 0.5-2 collected Recovery not noted
				0.0	
5					Recovery not noted
10		Brown, medium to coarse SAND and GRAVEL, trace silt; moist.			Recovery not noted
				0.0	Sample CFSB-075 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-079	**48.39131057**	**-114.1331157**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/1/16-6/1/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Gravel, little Silt; moist.		0.0	2 ft recovery Sample CFSB-079 0-0.5 collected
				0.0	Sample CFSB-079 0.5-2 collected 0.5 ft recovery
5					
				0.0	1 ft recovery
10					
				0.0	Recovery not noted Sample CFSB-079 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-080	**48.39136429**	**-114.1335001**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/1/16-6/1/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, little Silt, trace clay; moist.			0.5 ft recovery Sample CFSB-080 0-0.5 collected Sample CFSB-080 0.5-2 collected Recovery not noted
		Brown, fine to medium SAND and SILT, trace clay; moist.			
5		Brown, fine to coarse SAND, some Gravel and Silt, trace clay; moist.			2 ft recovery
				0.0	
10					1.5 ft recovery
				0.0	Sample CFSB-080 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-082	**48.39147802**	**-114.1338709**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/1/16-6/1/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to red, coarse GRAVEL and fine to coarse SAND; dry to moist.		0.0	2 ft recovery Sample CFSB-082 0-0.5 collected
		Brown, GRAVEL and fine to coarse SAND, trace silt and clay; moist.		0.0	Sample CFSB-082 0.5-2 collected Recovery not noted
5					Recovery not noted
		Brown, fine to coarse SAND, little Silt; moist.			
10					Recovery not noted Sample CFSB-082 10-12 collected
		Brown, SAND and GRAVEL; moist.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-084	**48.39130834**	**-114.1354531**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/27/16-5/27/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL, some Sand, little Silt; moist.			2 ft recovery
		Brown, GRAVEL and SAND, little Silt; moist.		0.1	Sample CFSB-084 0-0.5 collected
1					
				0.0	Sample CFSB-084 0.5-2 collected
2		Brown, GRAVEL, some medium to coarse Sand; moist.			2 ft recovery
3					
4				0.0	
5		Brown, medium to coarse SAND and GRAVEL, trace silt; wet.			2.5 ft recovery
6					
7					
8				0.0	
9					
10		Brown, GRAVEL and medium to coarse SAND; moist.			0.8 ft recovery
11				0.0	Sample CFSB-084 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-086	**48.39134828**	**-114.1360945**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/26/16-5/26/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to red, GRAVEL, some medium to coarse Sand, trace silt; moist.			2 ft recovery
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.		0.0	Sample CFSB-086 0-0.5 collected
1					1
				0.0	Sample CFSB-086 0.5-2 collected
2					2
		Brown, fine to coarse SAND, some Gravel, trace silt; moist to wet.			2 ft recovery
3					3
4				0.0	4
5					5
					2.5 ft recovery
6					6
7					7
8				0.5	8
9					9
10					10
		Brown, GRAVEL and SAND; moist.			1.6 ft recovery
11					11
				1.1	Sample CFSB-086 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-087	**48.3913698**	**-114.1364495**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/26/16-5/26/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, medium to coarse SAND and GRAVEL; moist.			2 ft recovery
		Brown, GRAVEL and SAND, little Silt; moist.		0.0	Sample CFSB-087 0-0.5 collected
1					
				0.0	Sample CFSB-087 0.5-2 collected
2					
		No recovery.			No recovery
3					
4					
5					
		Brown, GRAVEL and medium to coarse SAND, little Silt; moist to wet.			2.5 ft recovery
6					
7					
8				0.0	
9					
10					
		Brown, GRAVEL, little Sand and Silt; moist.			1.0 ft recovery
11				0.0	Sample CFSB-087 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-088	**48.39118029**	**-114.1371759**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/26/16-5/26/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, SAND and GRAVEL; moist.			2 ft recovery
		Brown, GRAVEL and SAND; moist.		0.6	Sample CFSB-088 0-0.5 collected
1					1
				0.6	Sample CFSB-088 0.5-2 collected
2					2
		Brown, GRAVEL, little Sand; moist.			2 ft recovery
3					3
4				0.5	4
5					5
		Brown, medium to coarse SAND and GRAVEL; moist.			2.5 ft recovery
6					6
7					7
8				0.9	8
9					9
10					10
		Brown, GRAVEL, some Sand; moist.			1.0 ft recovery
11					11
				0.0	Sample CFSB-088 10-12 collected
12					Boring completed at 12 ft bls 12

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-092	**48.39113984**	**-114.1375194**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**G. Davis**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/26/16-5/26/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Red, crushed GRAVEL; moist.			2 ft recovery
		Brown, SAND and GRAVEL, trace silt; moist			
		Brown, fine to coarse SAND and GRAVEL, trace silt; moist.		0.2	Sample CFSB-092 0-0.5 collected
1					
				0.1	Sample CFSB-092 0.5-2 collected
2		Brown, SAND and GRAVEL, trace silt; moist.			3 ft recovery
3					
4				0.5	
5		Brown, SAND and GRAVEL; moist.			2 ft recovery
6					
7					
8				0.5	
9					
10		Brown, GRAVEL, some Sand; moist to wet.			1.0 ft recovery
11				0.6	Sample CFSB-092 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-094	**48.3912071**	**-114.1380515**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to red, GRAVEL and medium to coarse SAND, little Crushed rock, trace cobble; moist.			2 ft recovery
		Brown, fine to coarse SAND, some Gravel, little Cobble, trace silt and crushed rock; moist.		0.0	Sample CFSB-094 0-0.5 collected
				0.0	Sample CFSB-094 0.5-2 collected
		No recovery.			No recovery
5					5
		Gray, GRAVEL and fine to coarse SAND, some Crushed rock, trace cobble; moist.			1.25 ft recovery
				0.0	
10					10
		Orange to yellow and gray, GRAVEL and fine to coarse SAND, trace cobble and crushed rock; moist.			2.5 ft recovery
				0.0	Sample CFSB-094 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-095	**48.39102225**	**-114.14057**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rod Mill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to coarse SAND, some Gravel, trace cobble and silt; moist.		0.1	2 ft recovery Sample CFSB-095 0-0.5 collected
				0.0	Sample CFSB-095 0.5-2 collected
		Brown, GRAVEL and medium to coarse SAND, trace cobble; moist.		0.0	0.75 ft recovery
5					5
		Brown to gray, GRAVEL, some medium to coarse Sand, little Cobble and Crushed rock; moist.		0.0	1.25 ft recovery
10					10
				0.0	2.5 ft recovery Sample CFSB-095 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-097	**48.39106666**	**-114.1433563**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rod Mill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Gravel, little Crushed rock, trace silt and cobble; moist.			2 ft recovery
		Brown, fine to coarse SAND, little Gravel and Silt, trace crushed rock and cobble; moist.		0.1	Sample CFSB-097 0-0.5 collected
				0.1	Sample CFSB-097 0.5-2 collected
		No recovery.			No recovery
5					5
		Brown, fine to coarse SAND, little Gravel and Silt, trace crushed rock and cobble; moist.			2.5 ft recovery
				0.0	
10					10
		Brown, fine to coarse SAND, some Gravel, trace cobble and crushed rock; moist.			2.5 ft recovery
				0.1	Sample CFSB-097 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-098	**48.3906108**	**-114.1435216**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rod Mill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, some Gravel, little Cobble; moist.		0.1	2 ft recovery Sample CFSB-098 0-0.5 collected
				0.1	Sample CFSB-098 0.5-2 collected
		No recovery.			No recovery
5					
		Brown to gray, GRAVEL, some medium to coarse Sand, trace cobble; moist.			2.5 ft recovery
				0.0	
10					
					2.5 ft recovery
				0.0	Sample CFSB-098 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-099	**48.39120176**	**-114.1446246**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**

APPROVED BY	LOGGED BY	
A.Muscietta	**S. Ward**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Randy Darnell	**Rod Mill**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to medium SAND, some Gravel, little Silt, trace cobble; moist.			2 ft recovery
		Brown, fine to medium SAND and GRAVEL, trace silt and cobble; moist.		0.1	Sample CFSB-099 0-0.5 collected
1					
				0.1	Sample CFSB-099 0.5-2 collected
2		Brown, fine to medium SAND and GRAVEL, trace cobble; moist.			Recovery not noted
3					
4				0.0	
5		Brown to gray, medium to coarse SAND and GRAVEL, little Crushed rock; moist.			2.5 ft recovery
6					
7					
8				0.2	
9					
10					1 ft recovery, rock in rods
11				0.1	Sample CFSB-099 10-12 collected
12					Boring completed at 12 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-100	**48.39051818**	**-114.1439894**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rod Mill**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, GRAVEL, some fine to coarse Sand, little Cobble; moist.		0.1	2 ft recovery Sample CFSB-100 0-0.5 collected
				0.1	Sample CFSB-100 0.5-2 collected
		No recovery.			No recovery
5					5
		Red to brown, GRAVEL, some fine to coarse Sand, little Cobble; moist.		0.0	1.25 ft recovery
10					10
		Brown, SAND and GRAVEL, little Cobble; moist.		0.1	2.5 ft recovery Sample CFSB-100 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-101	**48.388909**	**-114.13746**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/21/16-7/21/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, SILT and SAND, some Organics; moist.			Recovery not noted
		Brown, SAND and SILT; wet (loose).		0.0	Sample CFSB-101 0-0.5 collected
1					
				0.0	Sample CFSB-101 0.5-2 collected
2					Recovery not noted
3					
4					
5					Recovery not noted
6					
7					
8		Brown, fine to medium SAND and GRAVEL; wet.			
9					
10		Brown, fine SAND and SILT; wet (loose).			Recovery not noted
11				0.0	Sample CFSB-101 10-12 collected
12					
13					Boring completed at 13 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-102	**48.388422**	**-114.134548**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/13/16-7/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown, fine SAND, some Silt and Organics, little fine to medium Gravel, trace cobble; moist.			1.5 ft recovery
		Brown to gray, fine to coarse GRAVEL, some fine to coarse Sand, little Cobble, trace silt; wet.		1.2	Sample CFSB-102 0-0.5 collected
				1.7	Sample CFSB-102 0.5-2 collected
					2 ft recovery
				1.7	
5					5
		Brown to gray, fine to coarse GRAVEL, some medium to coarse Sand and Cobble; wet (loose).			4 ft recovery
				2.1	
		Gray to red, COBBLE, some fine to coarse Gravel, little medium to coarse Sand; wet (loose).			
10				0.5	10
		Brown to gray, fine to coarse GRAVEL, some Cobble, little medium to coarse Sand; wet (loose).			5 ft recovery
				0.1	Sample CFSB-102 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-104	**48.38814581**	**-114.1350218**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/13/16-7/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown to gray, SILT, some medium to coarse Gravel and Cobble, little fine Sand; wet (soft).			1 ft recovery
		Brown-gray, fine to coarse GRAVEL, some Cobble, little fine Sand and Silt; wet (dense).		0.0	Sample CFSB-104 0-0.5 collected
				1.1	Sample CFSB-104 0.5-2 collected 1.5 ft recovery
				0.4	
5					5
		Brown to red and gray, COBBLE, little medium to coarse Gravel and fine Sand; wet (loose).			4 ft recovery
				2.0	
10					10
		Brown to gray, COBBLE, some fine to coarse Gravel, little fine Sand, trace silt; wet (loose).			5 ft recovery
				2.4	Sample CFSB-104 10-12 collected
		Brown to gray, fine to coarse GRAVEL, some Cobble, little fine to medium Sand; wet (loose).			
				0.9	
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-109	**48.388398**	**-114.13413**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/13/16-7/13/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown, SILT, some fine Sand, little Organics, trace fine gravel; moist.			2 ft recovery
		Light brown, SILT, some fine to medium Gravel, little fine Sand, trace cobble; moist.		0.9	Sample CFSB-109 0-0.5 collected
				0.5	Sample CFSB-109 0.5-2 collected
		Brown, fine to medium GRAVEL, some medium to coarse Sand, little Cobble; moist to wet (loose).			2 ft recovery
				0.1	
5					5 ft recovery
		Brown to gray, COBBLE, some medium to coarse Gravel, little medium to coarse Sand; wet (loose).		0.0	
				0.0	
		Brown, medium to coarse SAND, some fine to medium Gravel, little Cobble; wet (loose).			
				0.1	
10		Brown to gray, medium to coarse GRAVEL, some Cobble, little medium to coarse Sand, trace silt; wet (loose).			5 ft recovery
					Sample CFSB-109 10-12 collected
				0.2	
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-110	**48.388216**	**-114.133834**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/14/16-7/14/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown to gray, SILT, some fine Sand, little Cobble, trace gravel and organics; moist to wet (soft).			2 ft recovery
		Brown, medium to coarse GRAVEL, some Cobble, little fine Sand; wet (loose).		1.6	Sample CFSB-110 0-0.5 collected
				0.5	Sample CFSB-110 0.5-2 collected
		Brown to red, fine to coarse GRAVEL, some medium to coarse Sand, little Cobble; wet (loose).			2 ft recovery
				0.4	
5					5
		Brown, fine to medium SAND, little fine to coarse Gravel and Cobble; moist to wet (loose).			4 ft recovery
				0.8	
10					10
		Brown, medium to coarse GRAVEL, some Cobble, little medium to coarse Sand; wet (loose).			5 ft recovery
					Sample CFSB-110 10-12 collected
				0.4	
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-113	**48.3880195**	**-114.1312841**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Amy Hoffmann**	GEOGRAPHIC AREA: **South Percolation Ponds**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**/ Hand Auger**	**2" Hand Auger**	**8/31/16-8/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown, fine SAND and SILT, trace fine gravel; dry (loose).			0.5 ft recovery Sample CFSB-113 0-0.5 collected
		Brown, fine SAND, some fine to medium Gravel, little Cobble and Boulder; moist (loose).		0.0	1.5 ft recovery
1					Sample CFSB-113 0.5-2 collected
				0.0	
2		Brown, medium to coarse SAND, some medium to coarse Gravel, little Cobble and Boulder; moist (loose).			2 ft recovery Sample CFSB-113 2-4 collected
3				0.0	
4					Boring completed at 4 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-114	**48.387401**	**-114.13141**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
NA / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Hand Auger	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/12/16-7/12/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND, some fine to medium Gravel, little Silt, trace cobble; moist.			2 ft recovery
		Light brown with orange tint, fine SAND, some Silt, little fine Gravel, trace cobble; moist (medium dense).		0.6	Sample CFSB-114 0-0.5 collected
				0.2	Sample CFSB-114 0.5-2 collected
		Brown to gray, fine SAND, some fine to coarse Gravel, little Cobble, trace crushed rock and silt; moist (loose).			3 ft recovery
				0.1	
5					5
		Brown to gray, fine to medium SAND, some fine to medium Gravel, little Crushed rock and Silt, trace cobble; dry to moist (loose).			4 ft recovery
				0.6	
10					10
		Light brown, fine SAND, some fine to medium Gravel, little Silt, trace cobble; moist (loose).			3.5 ft recovery
					Sample CFSB-114 10-12 collected
		Brown, fine to coarse GRAVEL, some fine to medium Sand, little Silt and Cobble; wet (loose).			
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-115	**48.3880469**	**-114.1310138**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**A. Hoffmann**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
NA / Amy Hoffmann		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**/ Hand Auger**	**2" Hand Auger**	**8/31/16-8/31/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Light brown, SILT, some fine Sand, trace fine gravel; dry.			Recovery not noted Sample CFSB-113 0-0.5 collected
		Brown, fine to coarse SAND, some Silt and fine to coarse Gravel, little Cobble; moist.		0.0	Recovery not noted
1					Sample CFSB-113 0.5-2 collected
				0.0	
2		Brown, fine to coarse SAND and fine to medium GRAVEL, some Cobble and Boulder; moist to very moist.			Recovery not noted Sample CFSB-113 2-4 collected
3				0.0	
4					Boring completed at 4 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-116	**48.387485**	**-114.127381**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Hand Auger	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/22/16-7/22/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND, little Silt; moist (loose).			2 ft recovery
		Brown, SAND and GRAVEL; wet (loose).		0.0	Sample CFSB-116 0-0.5 collected
				0.0	Sample CFSB-116 0.5-2 collected
		No Recovery.			No recovery
5					5
		Brown, SAND and GRAVEL, trace silt and clay; wet (loose).			5 ft recovery
				0.0	
10					10
		Brown, SAND and GRAVEL; wet (loose).			2 ft recovery
					Sample CFSB-116 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-118	**48.387474**	**-114.126112**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**South Percolation Ponds**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/22/16-7/22/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to medium SAND and GRAVEL; wet (loose).			Recovery not noted
		Brown, SAND and GRAVEL; wet (loose).		0.0	Sample CFSB-118 0-0.5 collected
					Sample CFSB-118 0.5-2 collected
					Recovery not noted
5					
					Recovery not noted
10					
		Brown, medium to coarse SAND and GRAVEL; wet (loose).			Recovery not noted
					Sample CFSB-118 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-119	**48.387152**	**-114.126527**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **South Percolation Ponds**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**7/12/16-7/12/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND, little medium to coarse Gravel and Silt, trace cobble; moist (loose).			2 ft recovery
		Light brown, fine SAND, little Silt, trace cobble and fine to coarse gravel; moist (loose).		0.0	Sample CFSB-119 0-0.5 collected
				0.1	Sample CFSB-119 0.5-2 collected
		Brown with orange tint; fine SAND, some Silt; moist (dense).			2 ft recovery
				0.1	
		Brown, fine SAND, some Cobble, little medium to coarse Gravel; moist (loose).			
				0.1	
5					5 ft recovery
				0.1	
		Gray to brown, fine SAND, some fine to medium Gravel, little Cobble, trace crushed rock; dry to moist (loose).			
10				0.1	
		Brown, fine SAND, some fine to coarse Gravel, little Cobble, trace silt; moist (loose).			5 ft recovery
				0.2	Sample CFSB-119 10-12 collected
		Brown, fine to coarse GRAVEL, some fine to medium Sand and Cobble, trace silt; wet.			
				0.1	
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-120	**48.400422**	**-114.146682**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/18/16-5/18/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Gray to brown, fine SAND and SILT, some Clay and Organics; dry.			Recovery not noted
1		Gray, SILT and CLAY; moist.			Sample CFSB-120 0-0.5 collected Iron staining
2					Sample CFSB-120 0.5-2 collected
		Brown, fine SAND; moist.			Recovery not noted
3					
4					
5					
		Brown, fine SAND; wet.			Recovery not noted
6					
7					
		Gray, CLAY; moist.			
8					
9					
		Gray, SAND and GRAVEL; moist.			Iron staining
10					
					Recovery not noted
11					Sample CFSB-120 10-12 collected
12					
13					
14					Boring completed at 14 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-121	**48.395479**	**-114.14656**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/18/16-5/18/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay and Orgaincs; moist.			Recovery not noted
		Brown, fine to coarse SAND, some Gravel; moist.		3.0	Sample CFSB-121 0-0.5 collected
				0.5	Sample CFSB-121 0.5-2 collected 2 ft recovery
		Brown, medium SAND, some Gravel; moist.			
5					5
		Brown, medium SAND and GRAVEL; moist.			3 ft recovery
				0.0	
10					10
					1.5 ft recovery
				0.3	Sample CFSB-121 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-122	**48.40049**	**-114.144725**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/19/16-5/19/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay; moist.			Recovery not noted
		Tan, SILT and fine SAND; moist.		0.0	Sample CFSB-122 0-0.5 collected
				0.0	Sample CFSB-122 0.5-2 collected
					Recovery not noted
		Gray, GRAVEL and CLAY; moist.			
5		Brown, fine to coarse SAND, some Gravel; moist to wet.			4.5 ft recovery
				0.0	
10					Recovery not noted
				0.4	Sample CFSB-122 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-123	**48.396231**	**-114.149903**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/19/16-5/19/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, SAND and SILT, some Clay and Organics; moist (loose).			Recovery not noted
		Dark brown to brown, SILT, some Clay, little fine Gravel; moist.		1.5	Sample CFSB-123 0-0.5 collected
				0.3	Sample CFSB-123 0.5-2 collected
					Recovery not noted
5		Brown, GRAVEL, some Sand; dry (loose).			
					Recovery not noted
				0.1	
10					
					Recovery not noted
				0.8	Sample CFSB-123 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-124	**48.395179**	**-114.152009**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/19/16-5/19/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay and Orgaincs; moist.			Recovery not noted
		Dark brown, SILT and fine SAND, trace fine gravel; moist.		4.5	Sample CFSB-124 0-0.5 collected
				2.8	Sample CFSB-124 0.5-2 collected
		Brown, coarse SAND and GRAVEL; moist.			Recovery not noted
				1.6	
5					
					Recovery not noted
				2.2	
10					
					3.3 ft recovery
				2.3	Sample CFSB-124 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-125	**48.396849**	**-114.14678**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/18/16-5/18/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark gray to brown, fine SAND and SILT, some Clay, little Gravel; moist.			Recovery not noted
		Brown, fine to coarse SAND, some Gravel; moist.		1.9	Sample CFSB-125 0-0.5 collected
				2.2	Sample CFSB-125 0.5-2 collected
					Recovery not noted
5					2.5 ft recovery
				1.3	
		Brown, fine to medium SAND; moist.			
10					5 ft recovery
		Dark brown, fine to coarse SAND, some Gravel; moist.		1.2	Sample CFSB-125 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-126	**48.39808**	**-114.146866**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/18/16-5/18/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay and Orgaincs; moist.			Recovery not noted
		Brown to light gray, SAND and GRAVEL; moist.		1.1	Sample CFSB-126 0-0.5 collected
				0.8	Sample CFSB-126 0.5-2 collected
		Brown, fine to medium SAND, some Gravel; moist.			3 ft recovery
5					5
		Brown, medium SAND, some Gravel; moist.			3 ft recovery
				1.3	
10					10
					Recovery not noted
				1.0	Sample CFSB-126 10-12 collected
15					Boring completed at 15 ft bls 15

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-127	**48.399077**	**-114.146888**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Mason**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Background Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/18/16-5/18/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine SAND and SILT, some Clay and Gravel, little Orgaincs; dry to moist.			Recovery not noted
		Brown, SAND and GRAVEL; dry to moist.		0.3	Sample CFSB-127 0-0.5 collected
				1.4	Sample CFSB-127 0.5-2 collected
					Recovery not noted
		Gray, GRAVEL, some Cobble; dry to moist.			
5		Brown, SAND and GRAVEL; dry to moist.			3 ft recovery
10					Recovery not noted
				0.6	Sample CFSB-127 10-12 collected
		Brown, GRAVEL, some Cobble; dry to moist.			
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-128	**48.39030858**	**-114.1365031**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Rectifier Yards**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to medium SAND, some Gravel, trace cobble; moist.			2 ft recovery
		Brown, fine to medium SAND, some Gravel, little Cobble; moist.		0.1	Sample CFSB-128 0-0.5 collected
				0.0	Sample CFSB-128 0.5-2 collected
		Brown, GRAVEL and medium to coarse SAND, little Cobble, trace crushed rock; moist			Recovery not noted
				0.0	
5					2.5 ft recovery
				0.0	
10					2.5 ft recovery
		Gray, GRAVEL, some fine to coarse Sand, little Cobble, trace crushed rock; moist.		0.1	Sample CFSB-128 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-129	**48.39019762**	**-114.1320316**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Rectifier Yards**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**5/24/16-5/24/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, medium to coarse SAND, some Gravel, little Cobble, trace silt; moist.		0.1	2 ft recovery Sample CFSB-129 0-0.5 collected
				0.1	Sample CFSB-129 0.5-2 collected 1.5 ft recovery
				0.1	
5		Gray, GRAVEL and fine to coarse SAND, little Crushed rock, trace cobble; moist.			Recovery not noted
				0.1	
10		Brown to gray, GRAVEL, some Cobble and fine to coarse Sand; moist.			3.75 ft recovery
				0.1	Sample CFSB-129 10-12 collected
15					Boring completed at 15 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-130	**48.39457308**	**-114.1346661**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**
APPROVED BY: **A.Muscietta** / LOGGED BY: **S. Ward**	**Columbia Falls, Montana**
DRILLING CONTRACTOR/DRILLER: **Cascade Drilling / Randy Darnell**	GEOGRAPHIC AREA: **Main Plant Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/17/16-6/17/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Concrete.			
		Brown, medium GRAVEL and fine to coarse SAND, little Cobble and Silt; dry to moist.		1.2	Sample CFSB-130 0.5-2 collected Recovery not noted
		Brown, medium GRAVEL and fine to medium SAND, some Silt, little Cobble; moist.		2.1	Recovery not noted
5		Brown to black, fine to medium SAND, little Silt, Gravel and Crushed rock; dry to moist.		2.5	Recovery not noted. Black staining
		Concrete.			
		Brown, coarse GRAVEL and medium to coarse SAND, some Cobble, little Silt; moist to wet.		1.0	
10				4.0	Recovery not noted. Sample CFSB-130 10-12 collected
		Brown, medium to coarse SAND, some coarse Gravel, trace cobble; moist (loose).		1.0	
15				1.3	Recovery not noted
		Brown, medium to coarse GRAVEL, some medium to coarse Sand, little Cobble; moist (loose).		4.6	
20					Boring completed at 20 ft bls

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Environmental Consulting & Management

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Fax: (631) 232-9898

SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-131	**48.39457239**	**-114.1343454**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**S. Ward**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Main Plant Area**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/17/16-6/17/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Concrete.			Recovery not noted
		Dark brown, medium to coarse GRAVEL, some fine to coarse Sand, little Cobble, trace silt.		0.5	Sample CFSB-131 0.5-2 collected Little black staining.
				0.5	Recovery not noted. Black staining
5					
		Concrete.			Recovery not noted
		Brown, medium to coarse SAND, some medium to coarse Gravel, little Cobble and Silt.		2.0	
10					
		Brown, medium to coarse GRAVEL and medium to coarse SAND, little Cobble; moist.			3.75 ft recovery. Black staining. Sample CFSB-131 10-12 collected
		Black, medium to coarse SAND, some medium to coarse Gravel, trace cobble.		252	1.5 ft recovery. Odor observed.
15					
		Brown to black, fine to medium SAND, some fine to medium Gravel, trace cobble.		44	Recovery not noted. Odor observed
		Black, fine to coarse SAND, some medium to coarse Gravel, little Cobble.		395	Odor observed. Sample CFSB-131 18-20 collected
20					
		Brown, medium to coarse SAND, some medium to coarse Gravel, little Cobble; moist (loose).		2.9	Recovery not noted.
		Brown, medium to coarse SAND, some medium to coarse Gravel, little Cobble, trace crushed rock; moist.		1.1	Sample CFSB-131 22-23 collected
25					Boring completed at 25 ft bls

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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE		
CFSB-132	**48.40275105**	**-114.1506906**		
PROJECT NO./NAME		LOCATION		
2476.0001Y002 / CFAC RI/FS Phase 1		**2000 Aluminum Drive**		
APPROVED BY	LOGGED BY	**Columbia Falls, Montana**		
A.Muscietta	**C. Arendt**			
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA		
Cascade Drilling / Randy Darnell		**Delbomb Residence**		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, fine to coarse SAND and GRAVEL, little Silt; moist.			Recovery not noted
		Brown, SILT, some Clay, trace fine sand; moist to wet.		0.0	Sample CFSB-132 0-0.5 collected
		Brown, fine to coarse SAND and GRAVEL, trace orgaincs; moist to wet.		0.2	Sample CFSB-132 0.5-2 collected
		Brown, SILT, some Clay and fine Sand; moist to wet.		0.0	3 ft recovery
5					5
		Gray, fine to coarse SAND and fine to coarse GRAVEL, little Silt; wet.		0.0	3 ft recovery
10					10
		Gray, fine to coarse SAND and GRAVEL, some Silt, trace clay; wet.		0.0	2 ft recovery Sample CFSB-132 10-12 collected
15					Boring completed at 15 ft bls 15

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Environmental Consulting & Management

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Islandia, NY 11749
Telephone: (631) 232-2600
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SOIL BORING LOG

WELL NO.	LATITUDE	LONGITUDE
CFSB-133	**48.40253748**	**-114.1508822**

PROJECT NO./NAME	LOCATION
2476.0001Y002 / CFAC RI/FS Phase 1	**2000 Aluminum Drive**

APPROVED BY	LOGGED BY	
A.Muscietta	**C. Arendt**	**Columbia Falls, Montana**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Cascade Drilling / Randy Darnell	**Delbomb Residence**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**2-inches**	**6620DT / Geoprobe**	**2" Macro-Core**	**6/2/16-6/2/16**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, SILT, trace fine sand and clay; moist.			Recovery not noted
		Brown, fine to coarse SAND and GRAVEL; moist to wet.		0.0	Sample CFSB-133 0-0.5 collected
				0.0	Sample CFSB-133 0.5-2 collected
		No recovery.			No recovery
				0.0	
5					5
		Gray, fine to coarse SAND, some fine to coarse Gravel, trace silt; wet.			4 ft recovery
				0.0	
10					10
		Gray, SILT, some fine to coarse Gravel and fine to coarse Sand; wet.			2.5 ft recovery
				0.0	Sample CFSB-133 10-12 collected
15					Boring completed at 15 ft bls 15

Preliminary - Under EPA and MDEQ Review

APPENDIX E

Landfill GPR Summary Report

Preliminary - Under EPA and MDEQ Review

COLUMBIA FALLS ALUMINUM COMPANY

COLUMBIA FALLS, MONTANA

GROUND PENETRATION RADAR SURVEY – LANDFILL SUMMARY REPORT

AUGUST 2016

Contact:

Roux Associates, Inc.
Michael Ritorto, Senior Hydrologist
209 Shafter Street
Islandia, New York 11749
631-630-2370

Scope of Work: Roux Associates requested the services of Shari A. Johnson & Associates Engineering to perform a Ground Penetration Radar (GPR) survey within the landfill areas. The objective of the GPR survey was to evaluate the potential of existing cap construction, if present, for each landfill site. GPR survey work was conducted the week of July 25th, 2016.

Ground Penetration Radar (GPR):

The GPR equipment utilized is manufactured by US Radar. The 250MHz antennae was selected for this job site based on the vertical depth of survey requested. The GPR signal was transmitted downward thru the landfill layers where then it was either absorbed, transmitted thru, or reflected back to the GPR receiver. The intensity of the returned signal created a graphical display for the operator as shown on Sheets 2 thru 6.

A GPR return signal velocity is determined by the dielectric constant property of a material. Materials with different dielectric constants create signal returns in a pattern that can be interpreted based on signal clarity, shape, and orientation. The examples below show how a pipe, tank or a compacted surface are graphically represented. Manmade objects in soils normally have abrupt transitions at the edges as shown by the pipe and tank signals. Compacted layers are shown by strong horizontal layers different in reflective strength from the immediately adjacent material.

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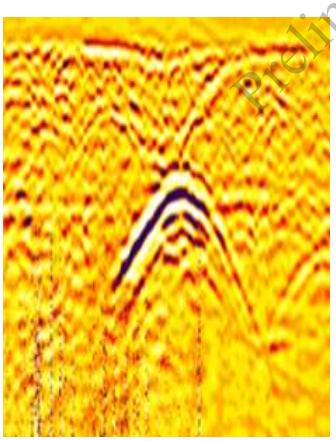
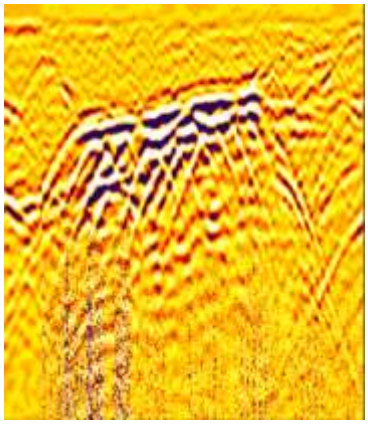
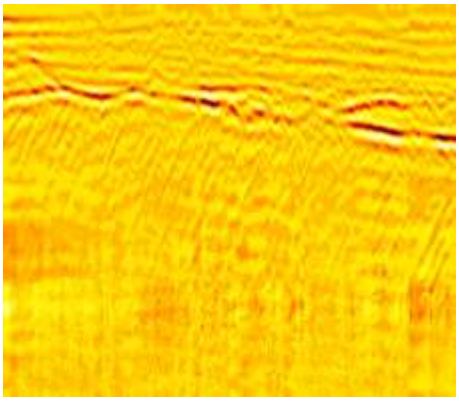


A. Pipe or Cylinder signal



B. Concrete tank on a slope



C. Old compacted buried road profile

In addition to the shape, whether the GPR signal can penetrate a material is also meaningful. Materials with high dielectric constants will receive and disperse the signal without a return. Saturated clays and water limit the signal from reaching greater depths. The dialectic constant table below can help for insight into the landfill results.

Air	1	Sand	4-6
Water (fresh)	81	Gravel	4-7
Ice	4	Clay	25-40
Asphalt	4-8	Silt	16-30
Concrete	8-10	Silty sand	7-10
Crushed base	6-8	Insulation board	2-2.5

Note: Moisture can significantly increase K* (e.g. for gravel it may go from 5 to above 20 as w increases).

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Site Survey:

The GPR survey was conducted to a depth of eight feet and results are shown from west to east with the exception of the East Landfill which was conducted roughly north to south. Sheet 1 shows the transect directions and labels corresponding to the data on Sheets 2 thru 6. The horizontal and vertical axis are distance along the transect and depth below surface, both in units of feet. On longer transects, a match line was used to show the connectivity of the split display.

The equipment uses a survey wheel which is calibrated for accurate horizontal measurements. The vertical axis is relative to the type of materials the radar signal is penetrating. Because the landfill materials are non-homogeneous and a field calibration to a known feature was not possible, a precise vertical depth of the features is not known. It is reasonable from equipment technology and experience to extrapolate that the depths are within a magnitude of +/- eight inches. Setting for signal gain and calibration were kept consistent to allow for comparison between the transects.

West Landfill - Sheet 2: A clear consistent horizontal signal layer was seen at approximately 1 ½ to 2 feet deep for the majority of the distance along the north and south transects. There was also an intermittent lighter horizontal signal approximately 1 foot below the stronger signal. Since the light signal is not an exact mirror of the top signal it is likely another layer. Interestingly, the layers both taper to the surface on either end of the transects for the north and south transect lines.

Wet Scrubber Sludge Pond - Sheet 3: Strong layered signals were recorded on the west portion of the landfill about 1 foot deep. Random signal return was visible beneath this layer. On the east side of both transects there were strong reflections that become less organized horizontally which typically means there is a lack of a defined and consistently compacted layer.

Sanitary Landfill - Sheet 4: This landfill area showed random object reflection with the exception of the north transect where a layered signal shows for approximately 50 feet starting at approximately 150 feet from the west edge.

Center Landfill - Sheet 5: The Center Landfill GPR survey data shows broken layers that vary in depth. The signal is not as strong as the top layer data for the West Landfill data nor the East Landfill layer. The western edge of the data for the first 30 feet of Transect G and the first 100 feet of Transect H is typical of native soil signatures.

East Landfill - Sheet 6: A very strong signal layer is shown at approximately 2-feet in depth. Above the layer the GPR picked up a signal from the soil consistent with a small to medium granular material. In contrast, there is little to no signal coming from below the layer. This is different from the other landfills where even below strong layering there was signal return of varying degrees.

Prepared on August 12, 2016 by:

Shari A Johnson, PE
MT License No. 13782

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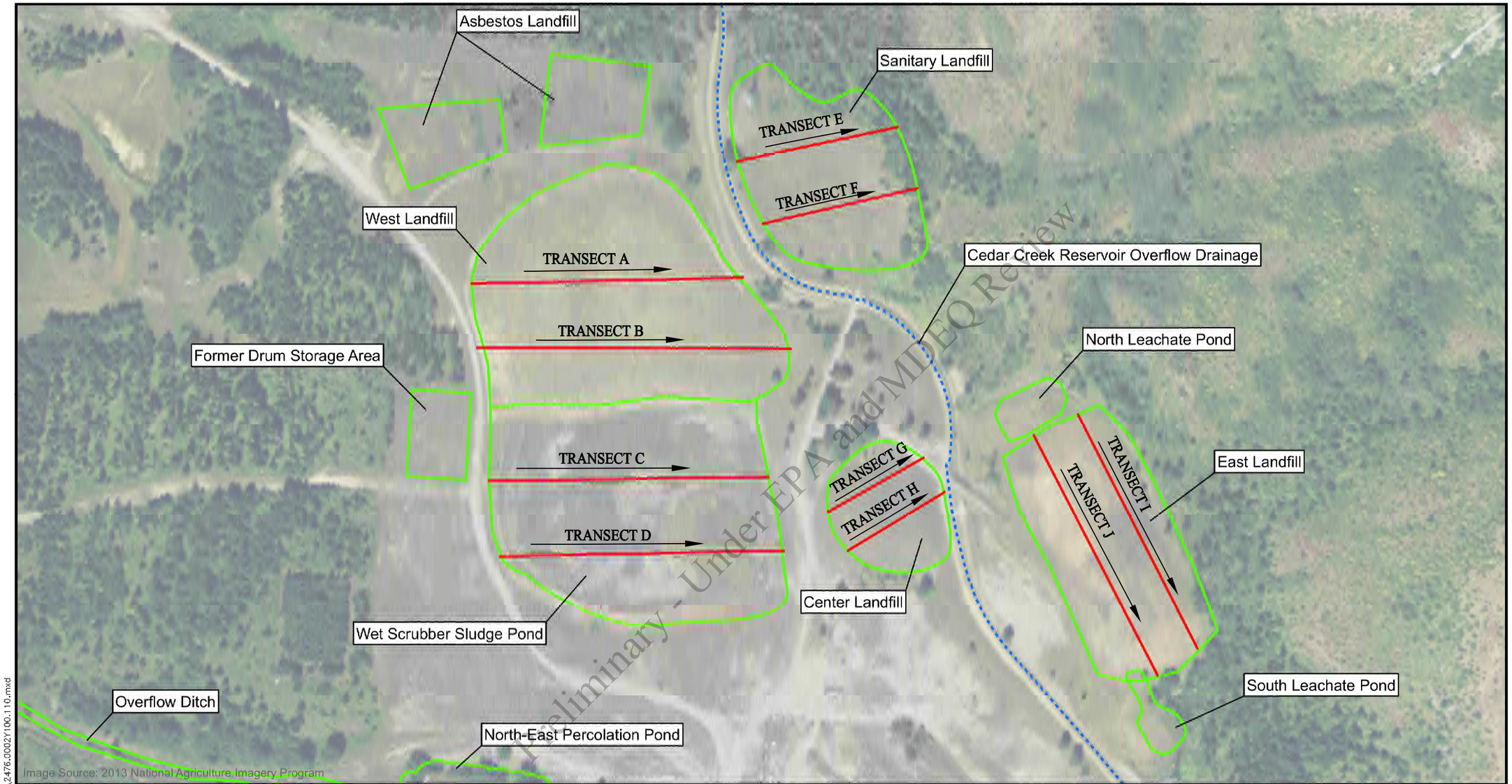

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V:\GIS\Projects\2476Y\0002Y\100\110\2476.0002Y100.110.mxd

Legend

Proposed GPR Transect

Site Features

250 0 250 Feet

N

Title:

PROPOSED GPR LANDFILL TRANSECTS

2000 ALUMINUM DRIVE
COLUMBIA FALLS, MONTANA

Prepared For:

COLUMBIA FALLS ALUMINUM COMPANY

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: A.M.	Date: 16MAY16	FIGURE
Prepared by: A.M.	Scale: 1 "= 250 '	10
Project Mgr: A.B.	Project: 2476.0001Y002	
File: 2476.0001Y132.110		

Date 8/10/16

Designed

Revisions

GROUND PENETRATION RADAR BY:
DEEP D'TECT SERVICES, LLC

ROUX ASSOCIATES, INC
CFAC - GROUND PENETRATION RADAR SURVEY

TRANSECT LEGEND

SHARI A JOHNSON & ASSOCIATES ENGINEERING PLLC
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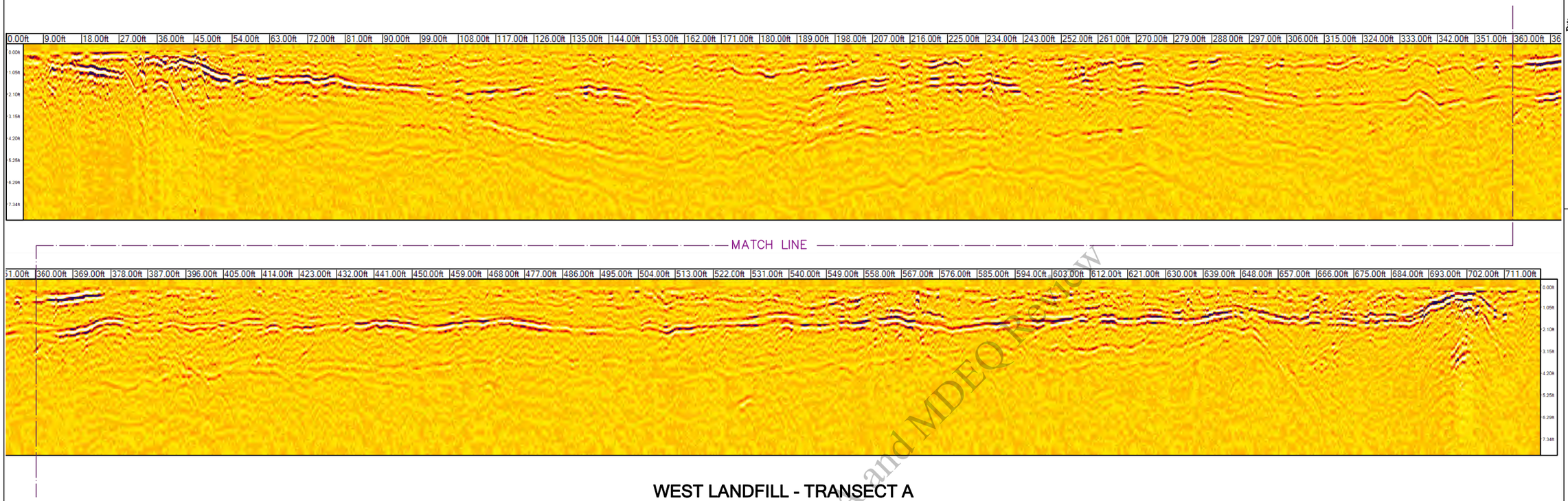
406-261-3019

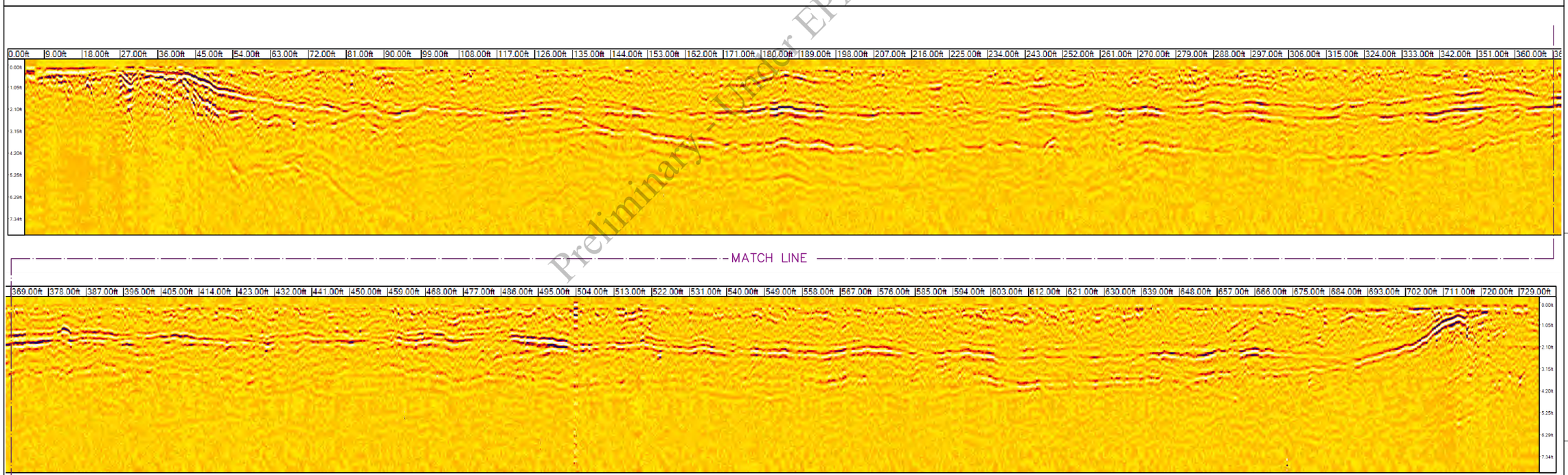
Sheet Number:

1

of 6



WEST LANDFILL - TRANSECT A



WEST LANDFILL - TRANSECT B

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Date 8/10/16

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GROUND PENETRATION RADAR BY:

DEEP D'TECT SERVICES, LLC

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WEST LANDFILL

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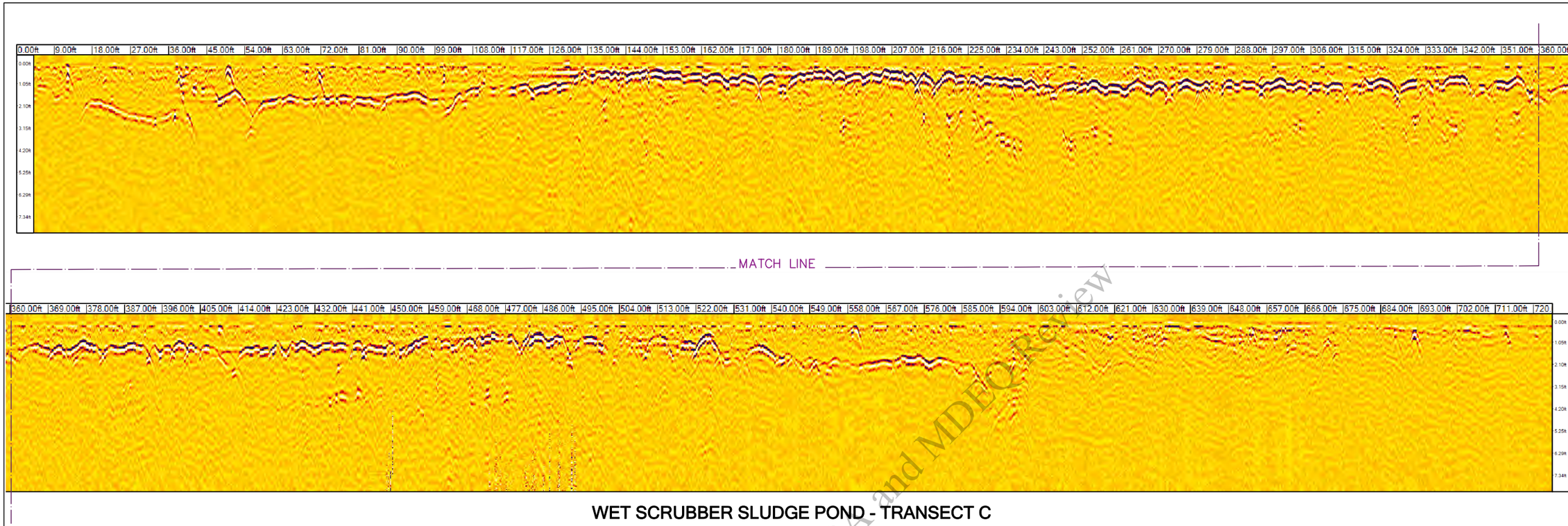
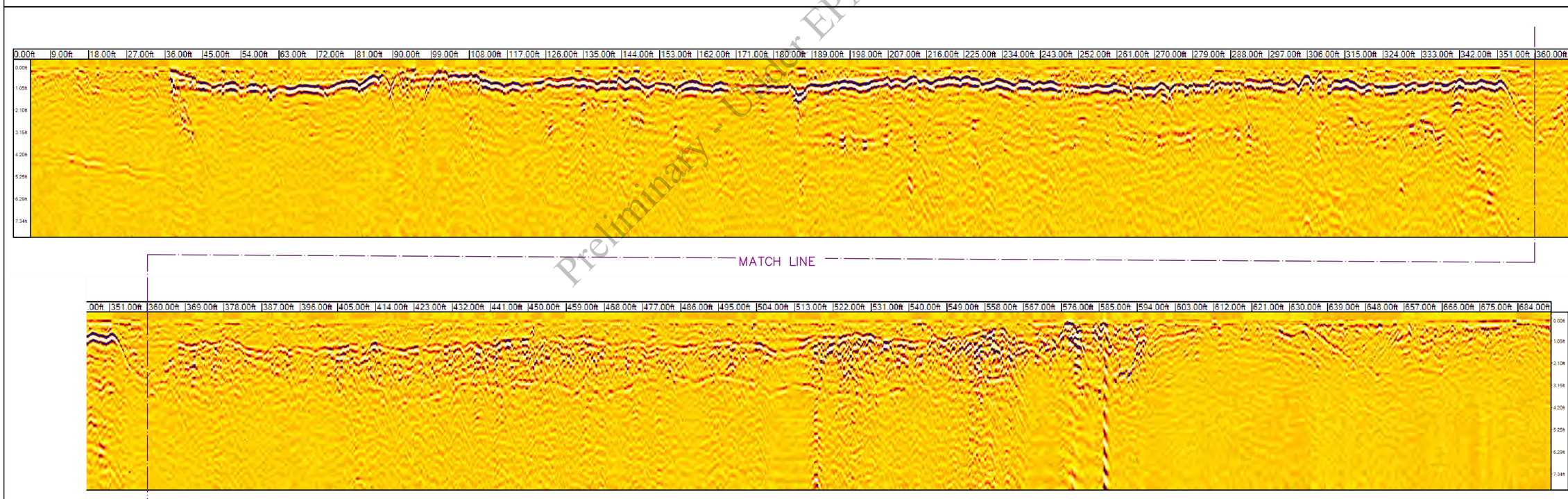
Sheet Number:

2

of 6



WET SCRUBBER SLUDGE POND - TRANSECT C



WET SCRUBBER SLUDGE POND - TRANSECT D

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WET SCRUBBER SLUDGE POND

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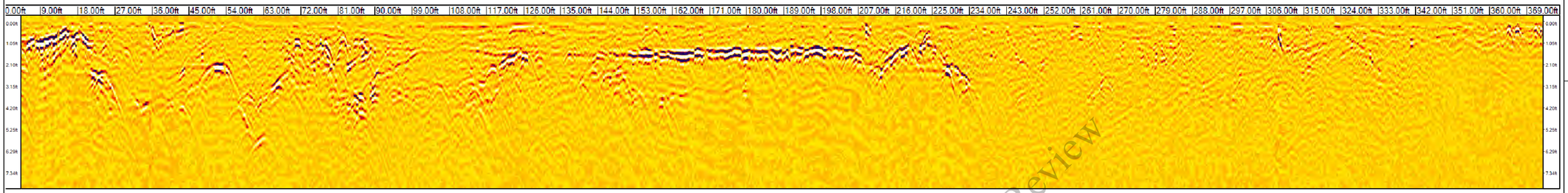
Sheet Number:

3

of 6



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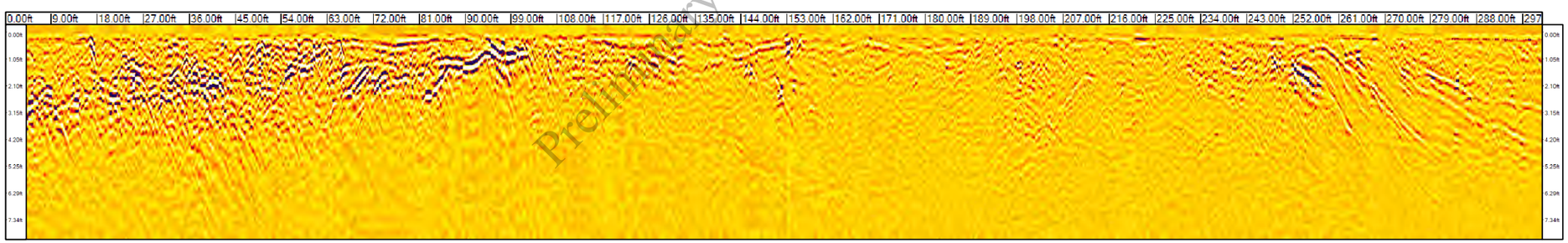

SANITARY LANDFILL - TRANSECT F

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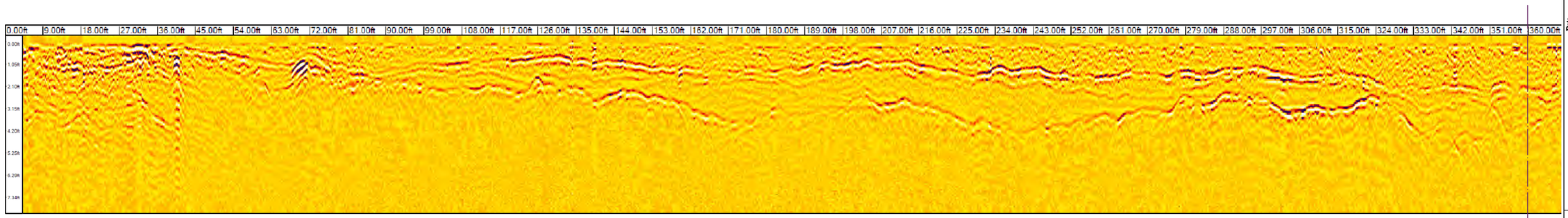
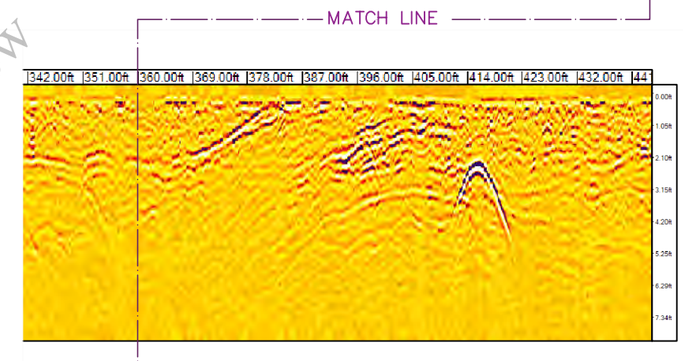
Sheet Number:

4

of 6





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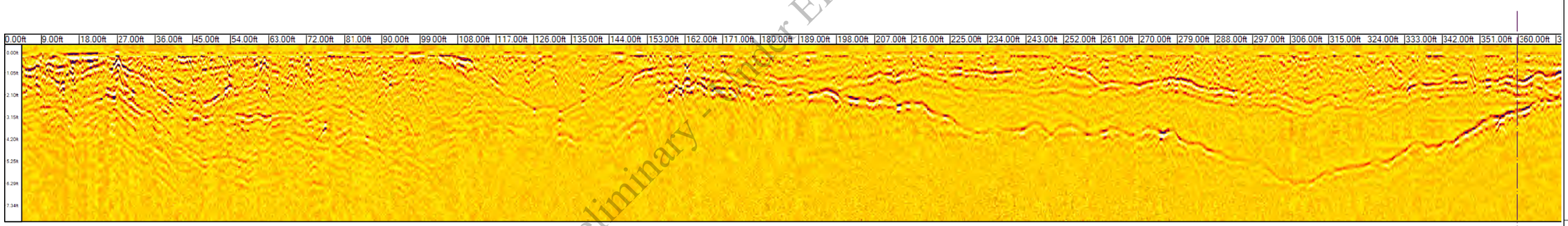

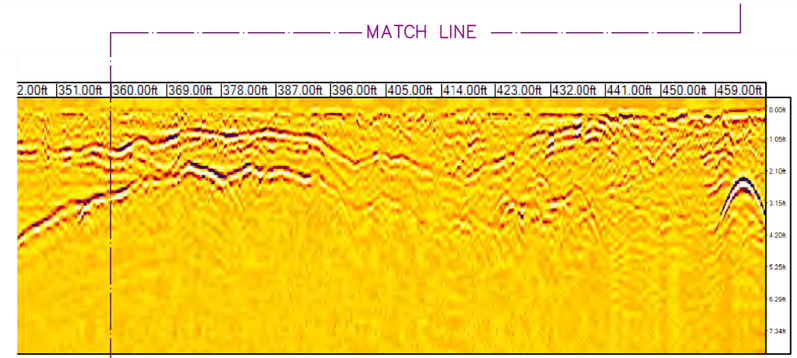

CENTER LANDFILL - TRANSECT H

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Date 8/10/16

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CENTER LANDFILL

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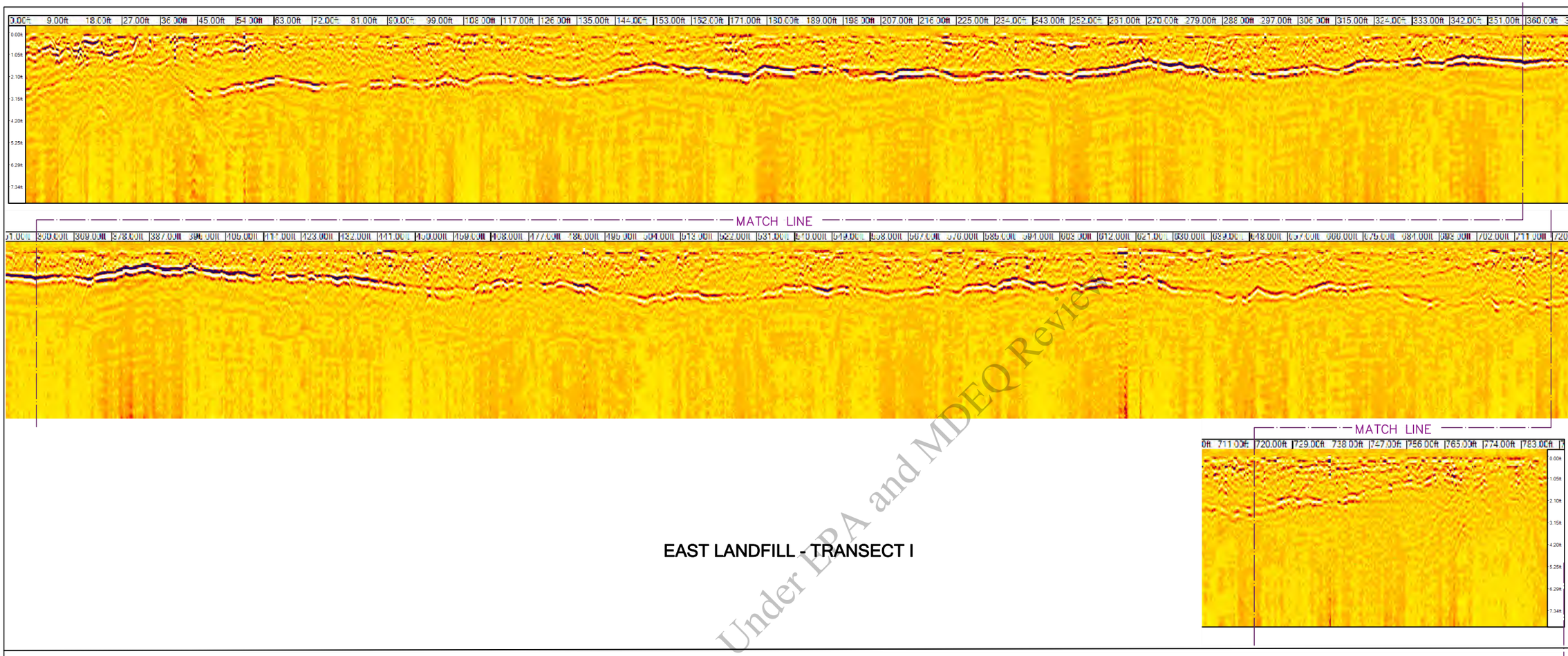
406-261-3019

Sheet Number:

5

of 6



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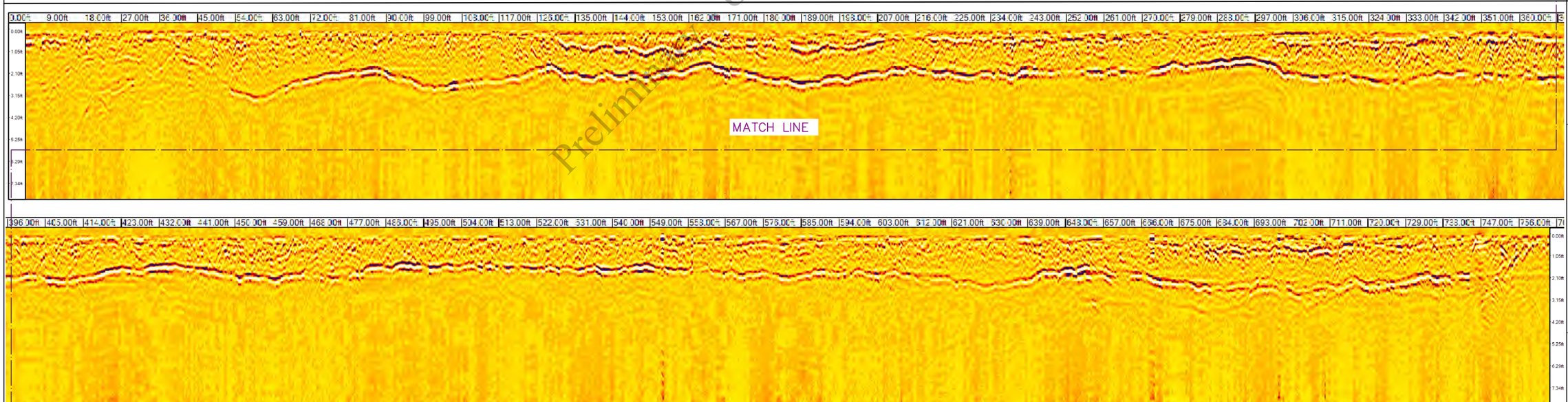

EAST LANDFILL - TRANSECT J

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Date 8/10/16

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EAST LANDFILL

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406-261-3019

Sheet Number:

6

of 6

APPENDIX F

Surface Water Discharge Calculations

Preliminary - Under EPA and MDEQ Review

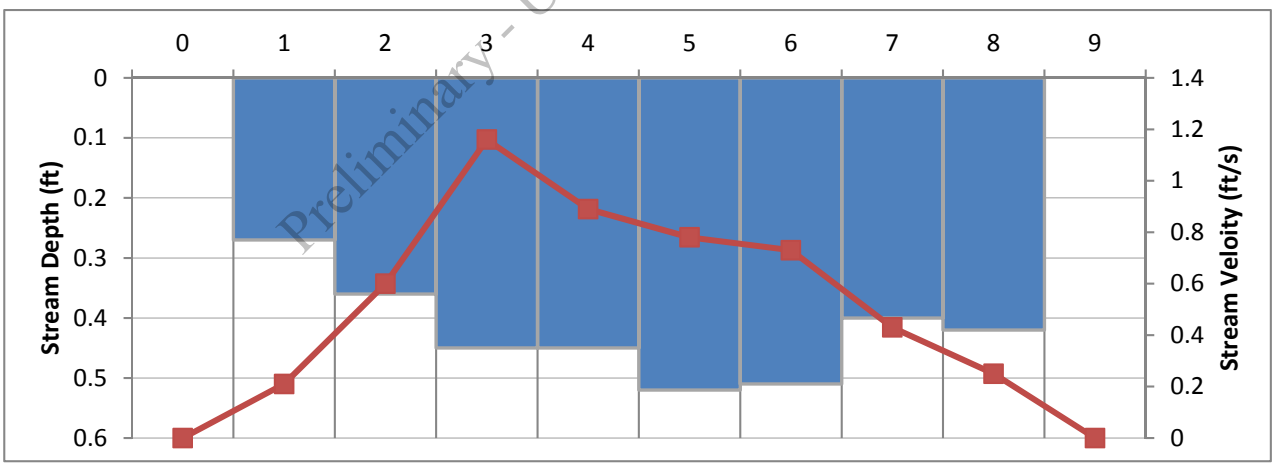
Station name: **CFSWP-009**
CFAC

Date : 6/7/2016

Team : Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0.5	0.00	0.00	Bank
2	1	0.27		0.21		1	0.27	0.057	
3	2	0.36		0.6		1	0.36	0.216	
4	3	0.45		1.16		1	0.45	0.522	
5	4	0.45		0.89		1	0.45	0.401	
6	5	0.52		0.78		1	0.52	0.406	
7	6	0.51		0.73		1	0.51	0.372	
8	7	0.4		0.43		1	0.40	0.292	
9	8	0.42		0.25		1	0.42	0.181	
10	9	0		0		0.5	0.00	0.000	Bank

Sum	3.38	2.45



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Station name: **CFSWP-010**
CFAC

Date : 6/7/2016

Team : Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0.5	0.00	0.000	Bank
2	1	0.53		0.08		1	0.53	0.042	
3	2	0.9		0.77		1	0.90	0.693	
4	3	1.38		0.6		1	1.38	0.828	
5	4	1.85		0.66		1	1.85	1.221	
6	5	2.08		0.73		1	2.08	1.518	
7	6	2.18		0.25		1	2.18	0.545	
8	7	2.05		0.77		1	2.05	1.579	
9	8	1.97		0.78		1	1.97	1.537	
10	9	1.65		1.16		1	1.65	1.914	
11	10	1.25		0.84		1	1.25	1.050	
12	11	0.87		0.38		1	0.87	0.331	
13	12	0		0		0.5	0.00	0.000	Bank

Sum	16.71	11.26

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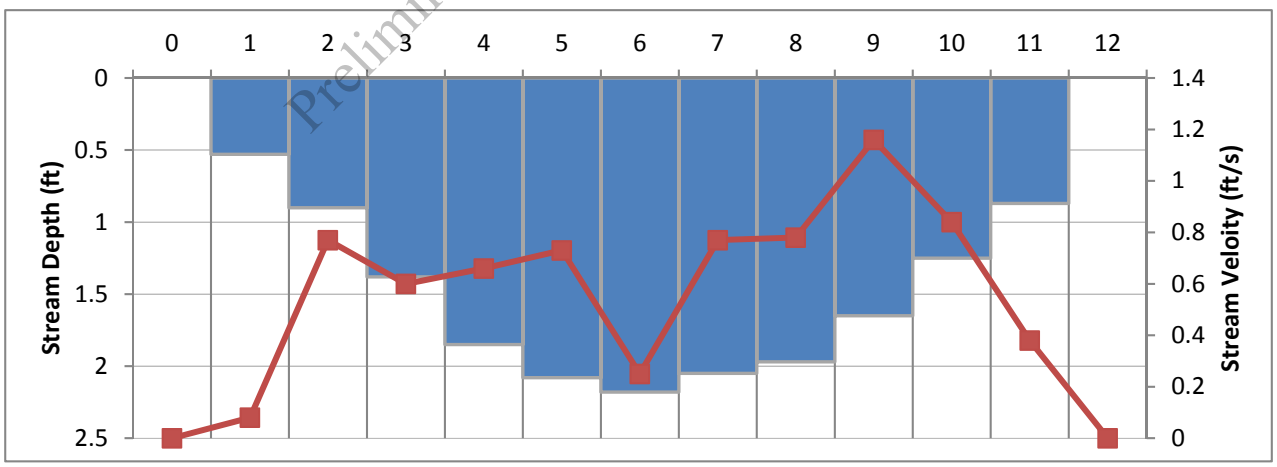


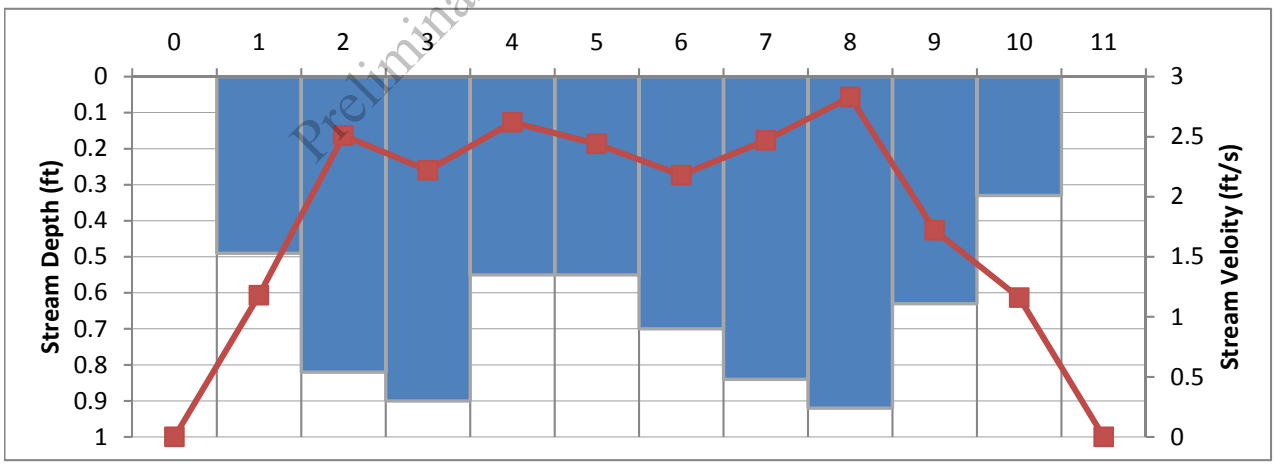
Station name: **CFSWP-011**
CFAC

Date :	6/7/2016

Team :	Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0.5	0.00	0.000	Bank
2	1	0.49		1.18		1	0.49	0.578	
3	2	0.82		2.51		1	0.82	2.058	
4	3	0.9		2.22		1	0.90	1.998	
5	4	0.55		2.62		1	0.55	1.441	
6	5	0.55		2.44		1	0.55	1.342	
7	6	0.7		2.18		1	0.70	1.526	
8	7	0.84		2.47		1	0.84	2.075	
9	8	0.92		2.83		1	0.92	2.604	
10	9	0.63		1.72		1	0.63	1.084	
11	10	0.33		1.16		1	0.33	0.383	
12	11	0		0		0.5	0.00	0.000	Bank
						Sum	6.73	15.09	

Preliminary - Under EPA and MDEQ Review



Station name: **CFSWP-012**
CFAC

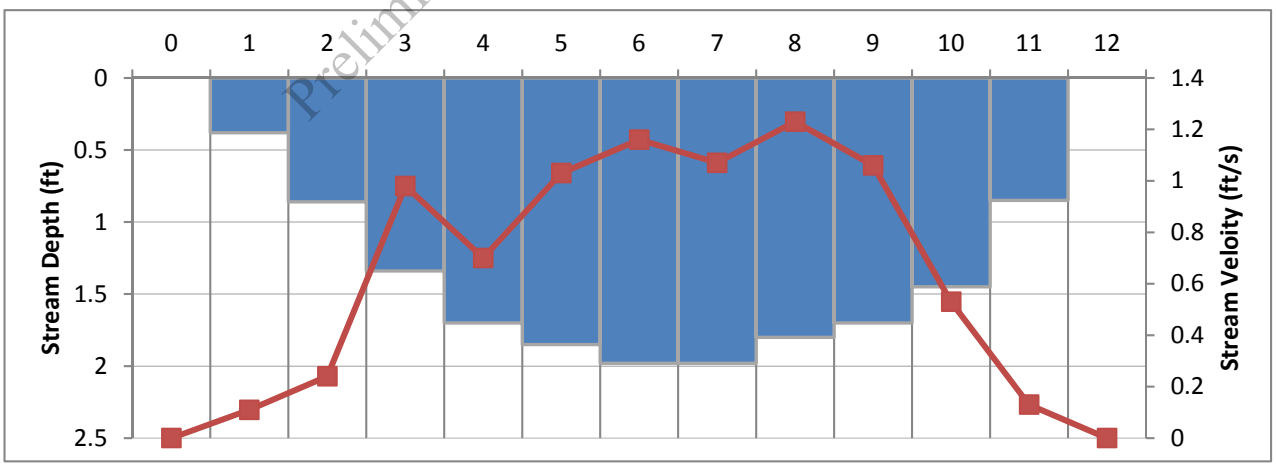
Date :	6/7/2016

Team :	Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0.5	0.00	0.000	Bank
2	1	0.38		0.11		1	0.38	0.042	
3	2	0.86		0.24		1	0.86	0.206	
4	3	1.34		0.98		1	1.34	1.313	
5	4	1.7		0.7		1	1.70	1.190	
6	5	1.85		1.03		1	1.85	1.906	
7	6	1.98		1.16		1	1.98	2.297	
8	7	1.98		1.07		1	1.98	2.119	
9	8	1.8		1.23		1	1.80	2.214	
10	9	1.7		1.06		1	1.70	1.802	
11	10	1.45		0.53		1	1.45	0.769	
12	11	0.85		0.13		1	0.85	0.111	
13	12	0		0		0.5	0.00	0.000	Bank

Sum	15.89	13.97

Preliminary - Under EPA and MDEQ Review



Station name: **CFSWP-013**
CFAC

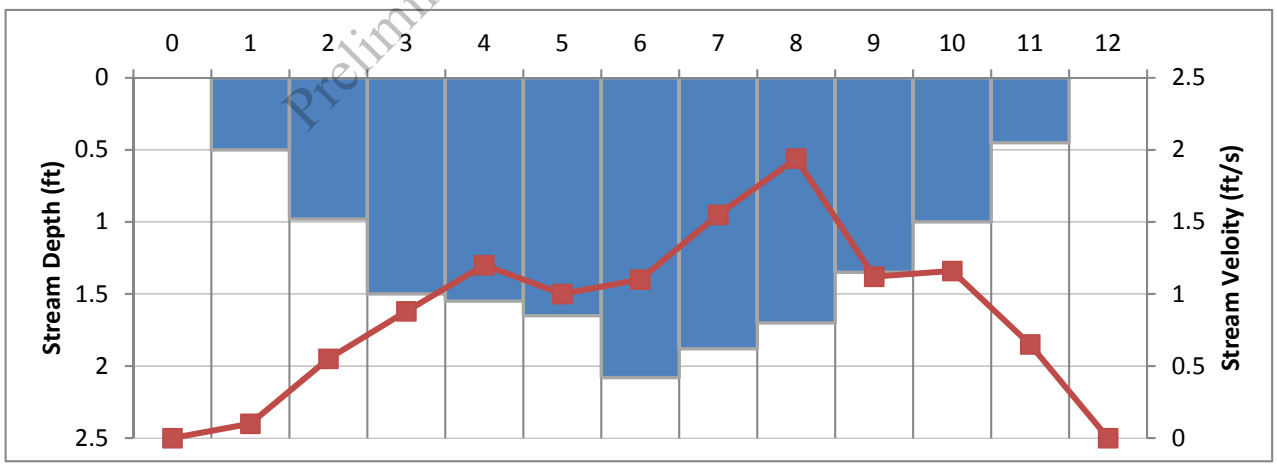
Date : 6/7/2016

Team : Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0.5	0.00	0.000	Bank
2	1	0.5		0.1		1	0.50	0.050	
3	2	0.98		0.55		1	0.98	0.539	
4	3	1.5		0.88		1	1.50	1.320	
5	4	1.55		1.2		1	1.55	1.860	
6	5	1.65		1		1	1.65	1.650	
7	6	2.08		1.1		1	2.08	2.288	
8	7	1.88		1.55		1	1.88	2.914	
9	8	1.7		1.94		1	1.70	3.298	
10	9	1.35		1.12		1	1.35	1.512	
11	10	1		1.16		1	1.00	1.160	
12	11	0.45		0.65		1	0.45	0.293	
13	12	0		0		0.5	0.00	0.000	Bank

Sum	14.64	16.88

Preliminary - Under EPA and MDEQ Review



Station name: **CFSWP-014**
CFAC

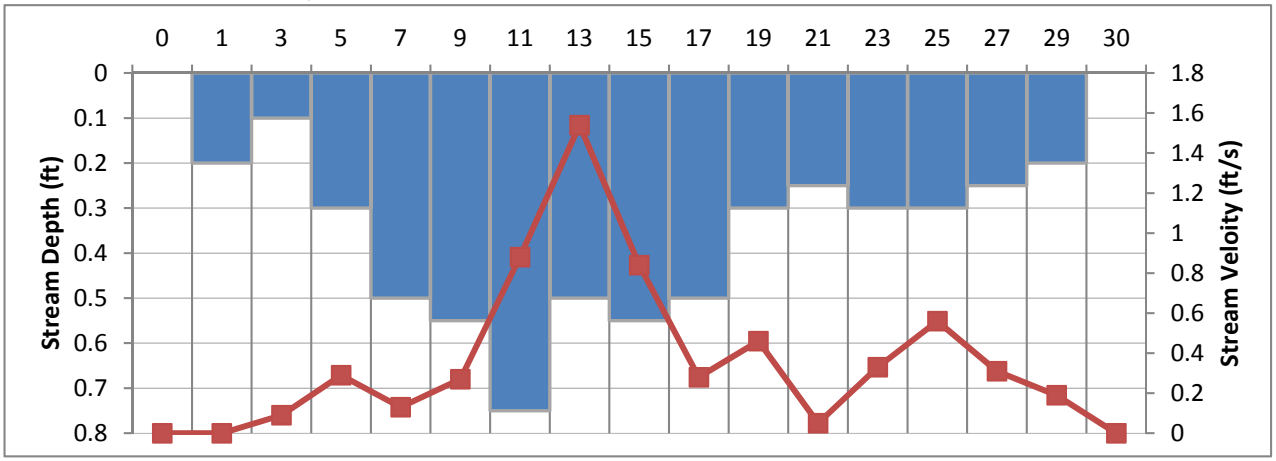
Date : 8/30/2016

Team : Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0	0	0	Bank
2	1	0.2		0		1	0.2	0	
3	3	0.1		0.09		2	0.20	0.018	
4	5	0.3		0.29		2	0.60	0.174	
5	7	0.5		0.13		2	1.00	0.130	
6	9	0.55		0.27		2	1.10	0.297	
7	11	0.75		0.88		2	1.50	1.320	
8	13	0.5		1.54		2	1.00	1.540	
9	15	0.55		0.84		2	1.10	1.694	
10	17	0.5		0.28		2	1.00	0.840	
11	19	0.3		0.46		2	0.60	0.168	
12	21	0.25		0.05		2	0.50	0.230	
13	23	0.3		0.33		2	0.60	0.030	
14	25	0.3		0.56		2	0.60	0.198	
15	27	0.25		0.31		2	0.50	0.280	
16	29	0.2		0.19		1.5	0.30	0.168	
17	30	0		0		0.5	0.00	0.000	Bank

Sum	10.80	7.09

Preliminary - Under EPA and MDEQ Review



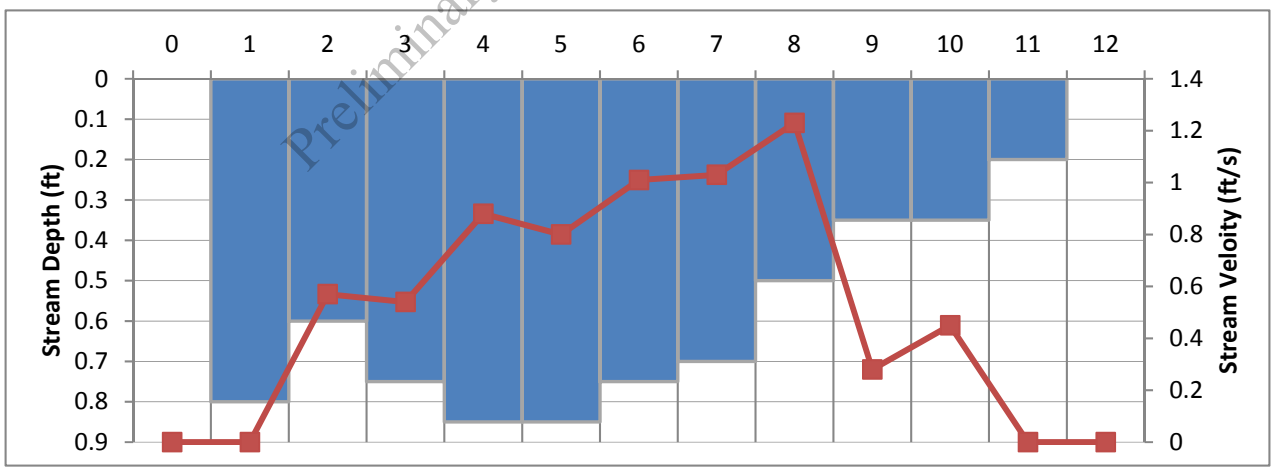
Station name: **CFSWP-015**
CFAC

Date : 8/29/2016

Team : Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0	0.00	0.000	Bank
2	1	0.8		0		1	0.80	0.000	
3	2	0.6		0.57		1	0.60	0.342	
4	3	0.75		0.54		1	0.75	0.405	
5	4	0.85		0.88		1	0.85	0.748	
6	5	0.85		0.8		1	0.85	0.680	
7	6	0.75		1.01		1	0.75	0.758	
8	7	0.7		1.03		1	0.70	0.721	
9	8	0.5		1.23		1	0.50	0.615	
10	9	0.35		0.28		1	0.35	0.098	
11	10	0.35		0.45		1	0.35	0.158	
12	11	0.2		0		1	0.20	0.000	
13	12	0		0		0.5	0.00	0.000	Bank

Sum	6.70	4.52



Preliminary - Under EPA and MDEQ Review

Station name: **CFSWP-016**
CFAC

Date : 8/29/2016

Team : Amy Hoffmann, Sydney Ward

Sample Number	Distance from Initial Point	Depth of Water	Meter Depth Above Stream Bottom	Velocity		Width	Area	Flow	
	ft	ft	ft	ft/s		ft	ft2	cfs	
1	0	0		0		0.5	0.00	0.000	Bank
2	1	0.6		0.11		1	0.60	0.066	
3	2	0.9		0.26		1	0.90	0.234	
4	3	0.95		0.2		1	0.95	0.190	
5	4	0.85		0.37		1	0.85	0.315	
6	5	0.9		0.64		1	0.90	0.576	
7	6	1.1		0.71		1	1.10	0.781	
8	7	1.1		1.19		1	1.10	1.309	
9	8	0.9		1.1		1	0.90	0.990	
10	9	0.75		0.36		1	0.75	0.270	
11	10	0.8		0.67		1	0.80	0.536	
12	11	0.5		0.61		1	0.50	0.305	
13	12	0.6		0.37		1	0.60	0.222	
14	13	0.45		0.03		1	0.45	0.014	
15	14	0.6		0.11		1	0.60	0.066	
16	15	0.2		0		1	0.20	0.000	
17	16	0		0		0.5	0.00	0.000	Bank

Sum	11.20	5.87

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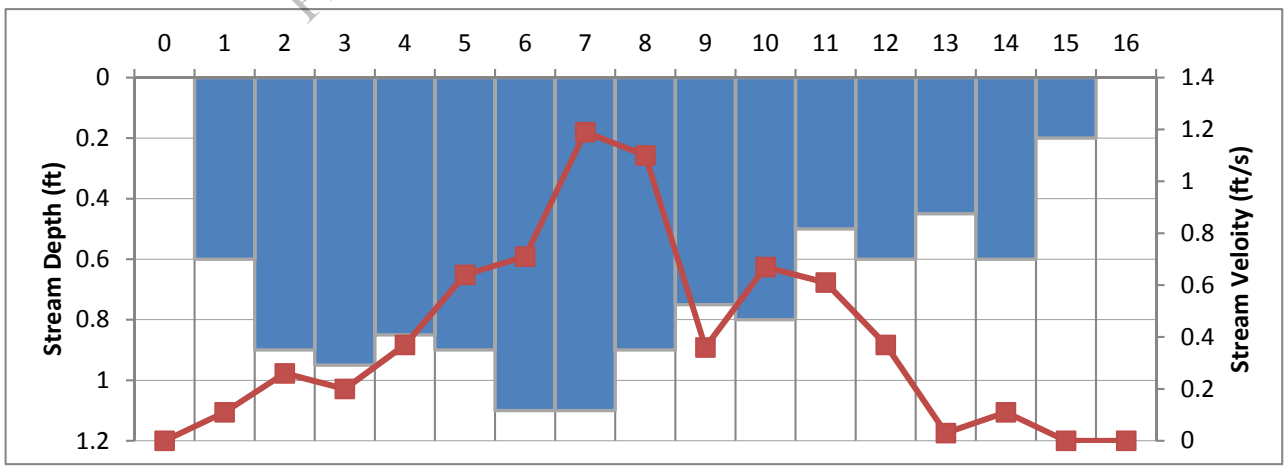

APPENDIX G

QA/QC Field Audit Forms

Preliminary - Under EPA and MDEQ Review

FIELD SAMPLING AUDIT CHECKLIST

Date: 21-Apr-16

Name and Title of Person Conducting Audit: Wai Kwan, Senior Engineer/QAQC Officer

Field Team Members Present During the Audit: Amy Hoffmann

Field Activity Being Audited: Landfill Soil Gas Screenig

	Yes	No	Comments/Recommendations
HEALTH AND SAFETY			
Is the HASP available and has it been reviewed and signed by all members of the field team?	X		
Was a tailgate meeting performed prior to starting the work?	X		
Is there a JSA for the task being performed and was it reviewed by the field team?	X		JSA should discuss proper ergonomics during sampling
Were SPSAs performed prior to beginning the task? (spot check at least one SPSA)	X		
Is the correct PPE donned for the task?	X		
Are investigation derived waste being handled correctly in accordance with the IDW Plan?	X		
FIELD RECORDS			
Is the field note book readily available and does it contain all relevant information?	X		
Are field data sheets required for this task? If yes, are data sheets available and do they contain all relevant information?	X		
Are field measurements within acceptable ranges?	X		
EQUIPMENT			
Is the field equipment appropriate for the task?	X		
Is field equipment in good operating condition? (i.e., all sensors working, no visible damage, no visible contamination)	X		
Does the field team demonstrate operating knowledge of the equipment?	X		
If daily field calibration is required, has it been completed and was it documented in the field note book or on the appropriate field data sheet?	X		
Are calibration ranges within acceptable limits?	X		

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	Yes	No	Comments/Recommendations
SAMPLE COLLECTION			
Is the sample collection method in accordance with the RI/FS Work Plan, SAP and the appropriate SOP?	X		
Does the field team demonstrate knowledge of the sampling method and techniques?	X		
Is the sample identification in accordance with the RI/FS Work Plan and SAP nomenclature standards?	X		Field map designation differed slightly from those used by the field team. Project team should review designations/nomenclatures before beginning each phase of sampling/investigation
Were sample containers supplied and preserved by the lab as appropriate?			NA
Are the number of containers appropriate for each sampling point as indicated by the lab?			NA
Have the sample containers been appropriately filled?			NA
Has decontamination been completed as necessary between sampling locations?	X		
Were QA/QC samples collected appropriately in accordance with the SAP?			NA
SAMPLE HANDLING, PACKAGING and SHIPPING PROCEDURES			
If required, were samples placed directly on ice after sample collection?			NA
Are sample container labels affixed, legible and completed in waterproof ink?			NA
Do the sample container labels contain all necessary information (i.e., sample date, sample time, project number/name, etc.)?			NA
Are sample containers packaged appropriately to avoid breakage, spillage, etc. during shipment?			NA
If samples are being shipped via FedEx (or similar service), has the tracking information been recorded in the field notebook			NA
CHAIN of CUSTODY (COC)			
Has the COC been filled out correctly?			NA
Are all samples (including QA/QC samples) listed?			NA
Were the analytical parameters, methods and preservation codes identified appropriately?			NA
Was the correct number of sample containers listed?			NA
Is the data deliverable appropriate?			NA
Is the turn-around time noted?			NA
Is the project manager contact information accurate?			NA

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	Yes	No	Comments/Recommendations
Was the COC signed?			NA
Are corrections, if any, neat and legible (i.e., single line through item to be deleted), initialed and dated?			NA
Is the sample cooler / box sealed appropriately?			NA
Is there a custody seal in place?			NA
Has a copy of the COC been retained by field manager?			NA

Additional Comments/Recommendations:

Auditor Signature:

RI Manager Signature:

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