



**Pacific Gas and
Electric Company**

Curt Russell
Topock Project Manager
Environmental Remediation

Topock Compressor Station
145453 National Trails Hwy
Needles, CA 92363

Mailing Address
P.O. Box 337
Needles, CA 92363

760.791.5884
Fax: 760.326.5542
Email: gcr4@pge.com

December 10, 2019

Ms. Pamela Innis
U.S. Department of the Interior
CHF Remedial Project Manager
One North Central Avenue, Suite 800
Phoenix, AZ 85004-4427

Mr. Aaron Yue
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

**Subject: November 2019 Monthly Progress Report for the Final Groundwater Remedy
Construction and Startup, PG&E Topock Compressor Station, Needles, California**
(Document ID: TPK_Monthly_Progress_Rpt_November_2019_20191210_Final)

Dear Ms. Innis and Mr. Yue:

In compliance with the *1996 Corrective Action Consent Agreement* (CACA) (Attachment 6, Part E, Section 9a and Attachment 7) and the *2013 Remedial Design/Remedial Action Consent Decree* (CD) (Paragraph 32 and Appendix C, Section 5), and pursuant to the *Construction/ Remedial Action Work Plan* (C/RAWP) (Section 2.6.3.1), this monthly report describes activities taken at Pacific Gas and Electric Company's (PG&E's) Topock Compressor Station during November 2019 as well as activities planned for the next six weeks (December 8, 2019 through January 18, 2020), and presents available results from sampling and testing performed in November 2019.

In addition, this report discusses material deviations from the approved design documents and/or the C/RAWP, if any, that PG&E has proposed to the California Department of Toxic Substances Control (DTSC) and the U.S. Department of the Interior (DOI), or that have been approved by DTSC and DOI. This report also highlights key personnel changes, if any, and summarizes activities performed and activities planned in support of DOI's 2012 Community Involvement Plan and DTSC's 2019 Community Outreach Plan, as well as contacts with the local community, representatives of the press, and/or public interest groups, if any. This report also includes data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection, as required by the Condition of Approval # xi in DTSC's approval letter dated August 24, 2018.

Please note that since activities conducted to comply with the project's Applicable or Relevant and Appropriate Requirement (ARARs) and the Subsequent Environmental Impact Report (SEIR) mitigation measures are currently reported in separate compliance reports, this information is not repeated in the monthly reports.

Monthly progress reports will be submitted to DTSC and DOI by the 10th day of the following month during construction and start-up of the groundwater remedy at the Topock Compressor Station which officially began on October 2, 2018. This is the fourteenth monthly progress report. Please contact me at (760) 791-5884 if you have any questions or comments regarding this submittal.

Sincerely,

Curt Russell
Topock Project Manager

Topock Project Executive Abstract

Document Title: *November 2019 Monthly Progress Report for the Groundwater Remedy Construction and Startup, PG&E Topock Compressor Station, Needles, California*

Submitting Agency: DOI, DTSC

Final Document? ☒ Yes ☐ No

Date of Document: 12/10/2019

Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other) PG&E

Priority Status: ☐ HIGH ☐ MED ☒ LOW

Is this time critical? ☐ Yes ☒ No

Action Required:

☐ Information Only ☐ Review and Input

☐ Other / Explain:

Type of Document:

☐ Draft ☒ Report ☐ Letter ☐ Memo

☐ Other / Explain:

What does this information pertain to?

☐ Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA)

☐ RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment)

☐ Corrective Measures Study (CMS)/Feasibility Study (FS)

☒ Corrective Measures Implementation (CMI)/ Remedial Action (RA)

☐ California Environmental Quality Act (CEQA)/ Environmental Impact Report (EIR)

☐ Interim Measures

☐ Other / Explain:

Is this a Regulatory Requirement?

☒ Yes

☐ No

If no, why is the document needed?

What is the consequence of NOT doing this item? What is the consequence of DOING this item?

The consequence for not doing this item is PG&E will be out of compliance with the 1996 Corrective Action Consent Agreement (CACA) and the 2013 Remedial Design/ Remedial Action Consent Decree (CD), as well as the Construction/Remedial Action Work Plan (C/RAWP).

Other Justification/s:

☐ Permit ☐ Other / Explain:

Brief Summary of attached document:

This monthly report describes activities taken during November 2019 and activities planned for the next six weeks (December 8, 2019 through January 18, 2020) and presents available results from sampling and testing in November 2019. In addition, this report discusses material deviations from the approved design documents and/or the *Construction/ Remedial Action Work Plan* (C/RAWP), if any, that PG&E has proposed to the California Department of Toxic Substances Control (DTSC) and the U.S. Department of the Interior (DOI) or that have been approved by DTSC and DOI. This report also highlights key personnel changes, if any, and summarizes activities performed and activities planned at the Topock Compressor Station in support of DOI's 2012 Community Involvement Plan and DTSC's 2019 Community Outreach Plan, as well as contacts with local community, representatives of the press, and/or public interest groups, if any.

Written by: Pacific Gas and Electric Company

Recommendations:

Provide input to PG&E.

How is this information related to the Final Remedy or Regulatory Requirements:

This submittal is required in compliance with the CACA, CD, and pursuant to the C/RAWP.

Other requirements of this information?

None.



November 2019
Monthly Progress Report for the
Final Groundwater Remedy Construction and Startup

PG&E Topock Compressor Station
Needles, California

Document ID: TPK_Monthly_Progress_Rpt_November_20191210_Final

December 2019

Prepared for
U.S. Department of the Interior and California Department of Toxic Substances Control

On Behalf of
Pacific Gas and Electric Company



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Acronyms and Abbreviations

µg/m ³	micrograms per cubic meter
AOC	Area of Concern
APE	Area of Potential Effect
ARAR	applicable or relevant and appropriate requirement
bgs	below ground surface
BLM	U.S. Bureau of Land Management
BMP	best management practice
CACA	Corrective Action Consent Agreement
C/RAWP	Construction/Remedial Action Work Plan
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH2M	CH2M HILL, Inc.
CHQ	Construction Headquarters
DOI	United States Department of the Interior
DTSC	California Department of Toxic Substances Control
ERTC	Environmental Release to Construct
FCR	field contact representative
LOC	level of concern
NTH	National Trails Highway
PBA	Programmatic Biological Agreement
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act
SEIR	Subsequent Environmental Impact Report
SPY	Soil Processing Yard
SWPPP	Stormwater Pollution Prevention Plan
TCS	Topock Compressor Station
TRC	Technical Review Committee
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WEAT	Worker Environmental Awareness Training
WVR	Work Variance Request

1. Introduction

Pacific Gas and Electric Company (PG&E) is implementing the final groundwater remedy to address chromium in groundwater near the PG&E Topock Compressor Station (TCS), located in eastern San Bernardino County 15 miles southeast of the city of Needles, California.

The U.S. Department of the Interior (DOI) is the lead federal agency overseeing remedial actions at the TCS. PG&E and the United States executed a Remedial Design/Remedial Action Consent Decree (CD), on behalf of the DOI, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 2012, which was approved by the U.S. District Court for the Central District of California in November 2013 (DOI, 2013). Paragraph 32 and Appendix C (Section 5) of the CD requires PG&E to submit to DOI electronic progress reports during construction of the remedial action and on a quarterly basis after the selected remedy has been implemented and demonstrated to be operating as intended.

The California Department of Toxic Substances Control (DTSC) is the lead state agency overseeing corrective actions at the TCS. Remedial activities are being performed in conformance with the requirements of the Resource Conservation and Recovery Act (RCRA) Corrective Action pursuant to a Corrective Action Consent Agreement (CACA) entered into by PG&E and the DTSC in February 1996 (DTSC, 1996). Attachment 6, Part E, Section 9a and Attachment 7 of the CACA require PG&E to provide certain information in monthly progress reports during construction of the corrective action.

In compliance with the CACA and CD requirements, PG&E proposed a template for the monthly progress reports in Exhibit 2.6-2 of the Construction/Remedial Action Work Plan (C/RAWP) (CH2M HILL, Inc. [CH2M], 2015b). The C/RAWP was approved by DOI on April 3, 2018 (DOI, 2018) and DTSC on April 24, 2018 (DTSC, 2018a).

This is the fourteenth of the monthly progress reports that will be submitted to DOI and DTSC for the duration of the remedy construction and startup. This monthly progress report documents activities during August 2019, and follows the content and format described in Exhibit 2.6-2 of the approved C/RAWP. The report is organized as follows:

- Section 2.1 describes completed construction activities; data collected, generated or received; nature and volume of waste generated; waste handling/disposal; issues encountered; actions taken to rectify problems/issues; personnel changes; and Work Variance Requests (WVRs; i.e., material deviations from the design documents, the C/RAWP, or other approved work plans), if any, as well as agencies' actions on those requests, and potential schedule impacts.
- Section 2.2 summarizes contacts with representatives of the press, local community, or public interest groups during the reporting period, other activities provided to assist DTSC and/or DOI in support of the Community Outreach Plan (DTSC, 2019) and/or Community Involvement Plan (DOI, 2012), respectively, and anticipated near-term (approximately next six weeks) activities in support of the Community Outreach and Community Involvement Plans.
- Section 2.3 describes the planned activities for the next six weeks (construction activities, sampling and monitoring events, etc.).
- Section 2.4 provides information relating to the construction schedule progress, sequencing of activities, information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule, and a description of efforts made to mitigate those delays or anticipated delays, if any.
- Section 3 lists the references cited in this report.

Please note that since activities conducted to comply with the project's Applicable or Relevant and Appropriate Requirement (ARARs) and the Subsequent Environmental Impact Report (SEIR) (DTSC, 2018b) mitigation measures are currently reported in separate compliance reports, the same information is not repeated in the monthly reports.

2. Monthly Update

2.1 Work Completed

Highlights of key activities related to the construction of the groundwater remedy completed during the reporting period include the following (in chronological order):

- On July 13, 2018, PG&E sent via email the first weekly six-week look-ahead schedule for the remedy construction field work. The weekly emails provide highlights of field activities in the previous week, field activities scheduled for the next week, and planned activities for the next six weeks. Recipients of the weekly emails are DOI, DTSC, the U.S. Fish and Wildlife Service (USFWS), the California Regional Water Quality Control Board (CRWQCB), the Metropolitan Water District of Southern California, Tribes, and the Technical Review Committee (TRC). PG&E continues to send these weekly emails to date. As of November 30, 2019, a total of 72 six-week look-ahead schedule emails have been sent. Of those, four six-week look-ahead schedule emails were sent in November 2019 (on November 3, 10, 17, and 24).
- On August 10, 2018, PG&E issued the first Environmental Release to Construct (ERTC) to contractors. As of November 30, 2019, a total of 54 ERTCs were issued for mobilization and construction activities (see Tables 2-1a and 2-1b). Three new ERTCs were issued in the month of November for the installation of IRZ-18, NTH IRZ-27/29/31/33/35, Frontier by-pass line, and remedy facilities on the MW-20 Bench.
- Starting on October 4, 2018, PG&E has published a daily construction activities list and discussed the list at the morning tailboards with Tribes and agency representatives. This daily list is intended to inform and facilitate observation by Tribes and agency representatives on site on that day. PG&E continues to publish these daily lists and discuss the list at the daily morning tailboards to date. In November 2019, a total of 22 daily construction activities lists were published and discussed at the morning tailboards.
- In November 2019, PG&E completed the following construction activities:
 - Conducted Frontier bypass conduit installation and well site preparation activities along National Trails Highway from IRZ-27 through IRZ-35.
 - Completed installation of the security fence at the Soil Processing Yard (SPY).
 - Pilot Boring/Well Installation Activities (by Rotosonic drilling):
 - a) Completed installation of MW-70BR and Hydro-6.
 - b) Completed well development at MW-S, MW-X, MW-Y, MW-D, and MW-11D.
 - Remedy Well Installation (by dual rotary drilling) and Well Testing Activities:
 - a) Completed remedy well installation at IRZ-17.
 - b) Completed well development at RB-3, RB-5, and IRZ-21.
 - c) Completed well testing at IRZ-39.
 - Recovery activities in response to two winter storms that affected pipeline construction and roadways.
 - See Attachment A for select photos of activities during this reporting period.
 - See Attachment B for water analytical results from well drilling that are available to date. Two separate PDFs containing available boring and well construction logs, and information about well testing activities are also included in Attachment B.
 - Baseline/Opportunistic Soil Sampling Activities:

- Pursuant to the Baseline Soil Sampling and Analysis Plan (Appendix A of the Soil Management Plan [which is Appendix L of the C/RAWP]), the following soil samples were collected in November 2019:
 - On November 12, 2019, a total of three samples was collected of the stained soil in the westernmost reach of Pipeline B, and one soil sample right below the staining.
 - On November 20, 2019, one soil sample was collected at 1 foot below ground surface (bgs) at MW-Z. In addition, one soil sample was collected at the bottom of the Pipeline B trench near AOC-9.
 - On November 21, 2019, one soil sample was collected at 1 foot bgs each at IRZ-18, IRZ-31, IRZ-33, and IRZ-35.
- See Attachment C for information about soil sampling locations and soil analytical results that are available to date.
- Perimeter Air Sampling Activities:
 - a) Dust monitoring/observation was conducted through November 30, 2019 at the perimeter of select work areas.
 - b) Perimeter air sampling for hexavalent chromium is performed at the perimeter of the work areas (outside of the exclusion zone) that are inside or within 20 feet of Areas of Concern (AOCs) and within the construction footprint where hexavalent chromium concentrations in soil have been historically reported. Two perimeter air sampling events were conducted in November 2019, during drilling activities at MW-70BR in AOC 10 (East Ravine).
 - c) See Attachment D for information about perimeter air sampling methodology and a summary of air analytical results available to date.
- Noise Monitoring Activities:
 - a) Noise monitoring is conducted at pre-approved locations closest to the construction activities. Through November 30, 2019, noise monitoring was conducted at the following pre-approved locations:
 - Location west of the mobile home park at Moabi Regional Park,
 - Location Maze B Combined Area 1/2,
 - Location Maze C Area 1,
 - Location mobile home park at Topock Marina.
 - b) In addition, on November 16, 2019, PG&E conducted a short-term pre-mobilization sound test at MW-Z location with the drill rig engine at rated load to assess potential compliance with NOISE-2.
 - c) See Attachment E for information about noise monitoring methodology, pre-approved noise monitoring locations, and a summary of noise monitoring data available to date.

2.2 Work Already Underway and During Implementation

As of November 30, 2019, PG&E has started and will continue to perform the following activities:

- Complete drilling IRZ-16 and IRZ-18 pilot boreholes.
- Complete installation of monitoring well MW-81 in the borehole of IRZ-19.
- Complete well development at Hydro-6.
- Complete re-building of the westernmost portion of Pipeline B corridor that was damaged by rain storms.
- Continue to install Pipeline B/J.

- Continue installation of Pipeline C, Segments C8 and C14.
- Complete the temporary removal of the PE-1 and PE-2 piping and conduits.
- Continue work to install remedy facilities on the MW-20 Bench.
- Conduct potholing inside TCS to locate utilities for upcoming remedy pipeline installation.
- Continue to conduct noise and dust monitoring and inspection of Stormwater Pollution Prevention Plan (SWPPP) Best Management Practices (BMPs).
- Continue to track and manage waste generated.
- Continue to manage displaced soil per the approved Soil Management Plan (Appendix L of the C/RAWP).

2.3 Freshwater Usage, Waste Generation and Management

As of November 30, 2019, the volumes of freshwater used for remedy construction and waste streams generated from remedy construction (starting on October 2, 2018) are as follows:

2.3.1 Freshwater and Wastewater

- An approximate total of 4,292,150 gallons (13.1 acre-feet) of freshwater was used, of which an approximate 22.7 percent was for pilot boring/well installation and general construction, 0.7 percent for hydrostatic testing of pipeline, and 76.6 percent was for fugitive dust suppression. Of this amount, 246,900 gallons of freshwater was used in November 2019.
- An approximate total of 45,820 gallons of hydrostatic testing water was discharged to land. Of this amount, 44,500 gallons were discharged in May 2019, 1,100 gallons were discharged in June 2019, and 220 gallons were discharged in October 2019. No hydrostatic testing activities occurred in July, August, September, and November 2019. All discharges to land comply with the substantive requirements of State Water Resources Control Board (SWRCB) Water Quality Order 2003-0003-DWQ. See Attachment F for approximate volume at each approved discharge location and date of each discharge.
- As of October 31, 2019, an approximate 49,876 gallons of injectivity testing water was discharged to land. Information related to this discharge is included in Attachment F, as required by the substantive requirements of SWRCB Water Quality Order 2003-0003-DWQ. Although well testing continues in November 2019, the November well testing information was not ready in time for this monthly report and will be included in the next monthly report.
- No remedy wastewater was sent to IM3 in November 2019. IM3 treated about 39,000 gallons of wastewater generated from drilling operations in October 2019. The discharge complies with the IM3 Applicable, Relevant, and Appropriate Requirements (ARARs).
- An approximate total of 561,475 gallons of wastewater generated from drilling operations were discharged to Compressor Station evaporation pond #4. In November 2019, 50,388 gallons of wastewater was discharged to pond #4. The discharge complies with the Waste Discharge Requirements (WDRs) of the California Regional Water Quality Control Board (CRWQCB), Colorado River Basin Region, Order No. R7-2018-0022.

At each sonic drilling location, the wastewater is initially stored in a holding tank in the primary work zone, and is transferred from the primary work zone, as needed, to 20,000-gallon frac tanks located at the MW-20 Bench. Each transfer load is tracked. At each dual rotary drilling location, freshwater and wastewater are conveyed between the frac tanks and the drilling location via pipes. Once a frac tank is full, its contents is characterized and managed in accordance with the approved Waste Management Plan (Appendix R of the C/RAWP).

- Wastewater from drilling operations contain particulates that settle near the bottom of the frac tanks over time. At this time, the sediments that collect near the bottom of the frac tanks are being consolidated and stored in a designated frac tank at the CHQ (WWT #8).

2.3.2 Displaced Materials/Soils/Clay

- Approximately 484 cubic yards of displaced materials (drill cuttings from well drilling and geotechnical investigation, and excess soil from potholing activities) were generated. Drill cuttings are typically stored in roll-off bins with closed tops. Displace clay materials are handled in accordance with the special clay handling protocol as specified in the Addendum to the SMP dated May 28, 2019. Samples are collected for characterization and analyzed in accordance with the Soil Management Plan (SMP).
- Approximately 20 cubic yards of drill cuttings generated in June 2019 and excess material from potholing activities conducted in May 2019 contain hexavalent chromium at concentrations slightly above the interim screening level (i.e., background concentration for hexavalent chromium). This material was shipped offsite on October 1, 2019 for disposal at US Ecology landfill in Beatty, Nevada. No offsite shipment occurred in November 2019.
- In March 2019, approximately 40 cubic yards of displaced soil was generated from potholing activities at the MW-20 Bench and along remedy pipeline alignment in the shoulder of NTH to pre-characterize soil in preparation for pipeline installation. Samples were collected for characterization in accordance with the Soil Management Plan. These soils are currently stored in bins at the SPY. A decision on the final disposition of these soils is forthcoming.
- In February 2019, approximately 100 cubic yards of displaced soil was generated from excavation for the brine tanks containment upgrade at the MW-20 Bench. Samples were collected for characterization and analyzed in accordance with the Soil Management Plan. This soil is currently stockpiled on a plastic liner at the SPY. A decision on the final disposition of this soil is forthcoming.
- Displaced sands from construction of Pipeline C3-C5 in the floodplain was used as pipe bedding material for Pipeline B/J. As of early October 2019, those displaced sands from the floodplain have been mostly consumed and therefore, import sands from CEMEX quarry in Bullhead, AZ have been used.
- With one exception, displaced material from trenching along Pipeline B/J alignment (rocks, soils) has been and will continue to be used to repair/build a 2-foot berm to control erosion and fill in existing eroded channels along the alignment.
 - The exception is displaced soil from two segments of Pipeline B, Station 8+55 to 9+25 and Station 6+40 to 6+60, where stained soil was observed in November 2019. The soil from these two segments are currently stockpiled on plastic (along Pipeline B, close to where they were excavated). The estimated volume for the stockpile from Station 8+55 to 9+25 is 57 cubic yards. The estimated volume for the stockpile from Station 6+40 to 6+60 is 17 cubic yards. Both stockpiles have been sampled on November 21, 2019 in accordance with the SMP. Analytical results are forthcoming.
- Displaced material from trenching along C14 has been used to fill in existing eroded channels on the hill side south of the alignment.

2.3.3 General Construction Waste, Sanitary Waste, and Recyclables

- In November 2019, approximately 56 cubic yards of trash and 15 tons of construction debris (primarily concrete waste from installation of the security fence at SPY) were generated and transported to Republic Services in Lake Havasu City for disposal and management.
- Sanitary waste from construction trailers/portable toilets is hauled offsite as needed.
- A total of nine tires was recovered during construction along Pipeline B/J. These tires were transported to and currently stockpiled at the SPY. Additional information will be provided in the next report as to their final disposition.

2.4 Worker Training and Education

- PG&E continues to provide the mandatory Site Health and Safety Training for its employees and contractors on a daily basis. As of November 30, 2019, a total of 117 health and safety training sessions were held and 369 employees and contractors received the training. Of those, in November 2019, six sessions were conducted and 11 employees/contractors were trained. After the training, the attendees signed the training roster.
- PG&E continues to provide the mandatory Worker Environmental Awareness Training (WEAT) to its employees and contractors that will be involved in the remedy construction project. The training is offered regularly on Mondays and Thursdays, and more frequently as needed. As of November 30, 2019, a total of 121 WEAT sessions were conducted and 435 employees and contractors received the training. Of those, in November 2019, 6 sessions were conducted and 19 employees/contractors were trained. Educational brochures are made available to attendees of the training; they are designed to reinforce the key topics and highlight the take-aways discussed during the classroom training. After the training, the attendees signed the WEAT Completion Form.
- In November 2019, no WEAT refresher session was conducted but one employee/contractor was retrained.
- PG&E's onsite biologist also trained Field Contact Representatives (FCRs), who will be responsible for compliance with biological avoidance and mitigation measures. As of November 30, 2019, a total of 12 FCR training sessions were conducted and 56 employees and contractors received the training. Of those, in November 2019, one session was conducted and one employee/contractor was trained.
- Training records are kept electronically and at the temporary construction trailers at the SPY. The records are available upon request.

2.5 Status of Work Variance Requests (WVRs)

There were no proposed WVRs in November 2019. Table 2-2 includes information regarding activities related to previously proposed WVRs (i.e., material deviations from the design documents, the C/RAWP, or other approved work plans), and agencies' actions on those requests.

2.6 Use of Future Activity Allowance

There has been no proposed use of Future Activity Allowance (FAA) to date.

2.7 Issues Encountered and Actions Taken to Rectify Issues/Problems

- On November 2, 2019, while stacking stabilization matting at the MW-Y well site, the operator of the excavator attempted to align a mat in the same orientation as the other mats nearby. By doing so, the mat was picked upright using the thumb of the excavator and then released so that the mat would fall in the desired position. The excavator was positioned slightly too close to the pivoting mat, allowing for the descending mat to clip a hydraulic line attached to the boom. The affected sand was removed, containerized in a 5-gallon bucket, and brought to IM3 (for pickup during the milk run).

A detailed report was submitted to DTSC, DOI, USFWS, and the Refuge manager on November 11, 2019. The root cause for the incident was the lack of procedure or work standard. The corrective action to prevent a recurrence is to ensure that operator will perform a different method when aligning/moving mats. To get the mat in the correct position, the operator will spin the mat while still on the ground rather flipping the mat over.

- PG&E has selected California Boring to install the jack-and-bore under NTH and is currently working with the contractor to refine its installation plan. California Boring proposed a change in the alignment of the jack-and-bore as well as locations of the bore pits and work area. PG&E discussed these changes with the agencies in a field meeting on November 7, 2019. The change in the alignment resulted in avoidance of nearby, mature palo verde tree and mesquite plants. However, there are historical resources within the proposed work area; PG&E has documented those resources and will

submit a report to and consult with the BLM and SHPO. In addition, in compliance with the PBA, PG&E is also seeking approval from CDFW, USFWS, and BLM for construction activities in the proposed work area. USFWS provided approval on November 25, 2019.

- On November 7, 2019, during an inspection of Pipeline B, DTSC noted stained soil on the wall of the pipe trench and notified PG&E. Samples of the stained soil were collected on November 12, 2019 and sent to ASSET lab for analysis. Results will be included in the monthly progress reports when available, and also documented in a memorandum. In this instance, the notification protocol when soil contamination is encountered in the field was not followed. PG&E has reiterated the need for notification with PIVOX management and their crew. The lessons learned and corrective action will be documented in the memorandum.
- Two rain storms in November brought significant rainfall to the project area and caused disruptions to the construction project including flooding of several work sites (e.g., MW-70BR drill site). Of note is on November 19, 2019, a portion of the westernmost segment of Pipeline B trench was damaged after a significant rain event on November 18. PIVOX removed all pipes and conduits in this segment and is reinstalling the trench and reinstalled the pipes/conduits.

2.8 Key Personnel Changes

There was no change to key PG&E project personnel in November 2019.

2.9 Communication with the Public

In compliance of SEIR mitigation measure HYDRO-6a, PG&E continues to seek permission from private owners to access non-project private water supply wells for sampling.

2.10 Planned Activities for Next Six Weeks

The planned activities for next six weeks (December 8, 2019 through January 18, 2020) include the following:

- Complete installation of IRZ-16.
- Start installation of IRZ-15 and NTH IRZ wells (IRZ-27, 29, 31, 33, and 35).
- Conduct well testing at RB-2 and IRZ-17.
- Complete well development at IRZ-17, MW-81, Hydro-6, RB-2, and MW-70BR.
- Continue to install remedy facilities at the MW-20 Bench.
- Continue to install Pipeline B and J.
- Continue to install Pipeline C Segment C14 and the access road over the pipeline.
- Start installation of Pipeline C8-Alt in the floodplain.
- Start site preparation for the installation of Pipeline M inside TCS (remove plants along the block wall west of the compressor building, remove block walls, grading, etc.)
- Start to install Pipeline M inside TCS.
- Collect data on soil resistivity for cathodic protection in the jack-n-bore receiving area.
- Install electrical pad at the Construction Headquarters.
- Continue to conduct noise and dust monitoring and inspection of SWPPP BMPs.
- Continue to log and manage waste generated.
- Continue to manage displaced soil per the approved Soil Management Plan.

Attachment G contains the six-week look-ahead schedule available at this time. Any adjustments to the schedule will occur as needed via the weekly emails (sent at the end of each week) and/or the daily list of construction activities (published daily and discussed with agency and Tribal representatives on site on that day).

2.11 Construction Schedule Review

Phase 1 of the groundwater remedy construction started on October 2, 2018. Table 2-3 presents a summary of the percent completeness for key construction activities as of November 30, 2019.

In addition, the latest project schedule including Phase 1 construction can be downloaded from the [project website](#).

2.12 Available Sitewide Groundwater Monitoring Data (DTSC Condition of Approval xi)

Pursuant to Condition of Approval # xi in DTSC's approval letter dated August 24, 2018 (DTSC, 2018a), PG&E is required to report data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection. In compliance with this requirement, PG&E submitted validated data to DTSC via monthly emails. For ease of recordkeeping and to minimize the number of ad-hoc compliance reports/emails, PG&E has included validated data in each monthly progress report starting with the November 2018 monthly report. The validated data are included in Attachment H of this report.

3. References

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Tables

Table 2-1a. Summary of Non-Well Environmental Release-To-Constructions (ERTCs)

*November 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California*

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
1	Initial mobilization activities at the Construction Headquarters (CHQ), Soil Processing Yard (SPY), and three staging areas (#9 Parking area off I-40, #18 MW-20 Bench, and #23 Transwestern Bench). Scope included installation of temporary construction trailers, portable generators, SWPPP BMPs, construction signages, and temporary construction fencing, as well as equipment staging and truck inspections.	August 10, 2018
Addendum 1 to ERTC #1	Scope included setup of wastewater and freshwater storage tanks at MW-20 Bench, improvement of the access road at the CHQ, installation of perimeter fence at the SPY, and grading at SPY.	September 21, 2018
Addendum 2 to ERTC #1	Scope included grading for drill rig setup at IRZ-20.	October 4, 2018
Addendum 3 to ERTC #1	Scope included geotechnical investigation in the footprint of the future Carbon Amendment building at the MW-20 Bench.	October 9, 2018
Addendum 4 to ERTC #1	Scope included the installation of a temporary handrail along the walkway from the MW-20 Bench to the floodplain.	December 28, 2018
2	Scope included the installation of the temporary construction water system and construction water tanks at Area #25 Route 66 Welcome Sign.	September 28, 2018
3	Scope included the installation of the Public Information Trailer, a fugitive dust sign, an information kiosk, and a construction delivery sign at the northwest corner of Park Moabi Road and National Trails Highway (NTH).	September 4, 2018
4	Scope included the installation of a truck containment pad at the TCS evaporation ponds and maintenance of the access road to the ponds.	September 24, 2018
6	Scope included the geotechnical investigation along Pipeline F alignment (on the Compressor Station entrance road).	October 3, 2018
7	Scope included the installation of traffic control along the southern end of NTH per the Traffic Control Plan.	September 17, 2018
9	Scope included the transplantation and planting of sensitive plants.	November 9, 2018
10	Scope included potholing activities along approved pipeline alignments and in building footprints, that are also in AOCs/SMWUs. The purpose is to pre-characterize soil in preparation for construction.	March 29, 2019
11	Scope included preparation of temporary staging areas, vegetation clearance, placement of stabilization mats, potholing in select locations, and installation of Pipeline C segments C1 through C6 in the floodplain.	January 3, 2019
11a	Scope included preparation of temporary staging areas, vegetation clearance, placement of stabilization mats, potholing in select locations, and installation of Pipeline C segments C7-C10, and C17 in the floodplain.	February 11, 2019
Addendum 1 to ERTC #11a	Scope included installation of Pipeline C Segment C14 along the southern access road to the floodplain (between BNSF railroad and I-40 bridges..	October 3, 2019
11b	Scope included installation of Pipelines B, F, and J.	May 31, 2019
Addendum 1 to ERTC #11b	Scope included details for installation of Pipeline B/F/J inside TCS.	July 25, 2019
12	Scope included non-intrusive site preparation work for the brine tanks containment upgrade on the MW-20 Bench (per Work Variance Request #1, see Table 2-2). A forthcoming addendum to this ERTC will be issued to include the actual upgrade activities.	January 10, 2019
12a	Scope included the actual brine tanks containment upgrade activities which include intrusive work on the MW-20 Bench (per Work Variance Request #1, see Table 2-2).	February 6, 2019
13	Scope included the installation of remedy facilities on MW-20 Bench.	November 21, 2019

Table 2-1b. Summary of Well Environmental Release-To-Constructions (ERTCs)

November 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
5a	Scope included the site setup, drilling, testing, and demobilization at MW-L.	September 27, 2018
5b	Scope included the placement of soil stabilization mats in the floodplain, setup of a temporary staging area near the north end of the access route in the floodplain, rig setup, installation of snow fence to protect plants, drilling, testing, and demobilization at IRZ-15.	October 12, 2018
5c	Scope included the site setup, drilling, testing, and demobilization at IRZ-20 on the MW-20 Bench.	October 15, 2018
5d	Scope included the site setup, drilling, testing, and demobilization at MW-E on the MW-20 Bench.	October 29, 2018
5e	Scope included the site setup, drilling, testing, and demobilization at MW-N in the upland.	November 15, 2018
5f	Scope included the site setup, drilling, testing, and demobilization at IRZ-13 in the floodplain.	November 7, 2018
5g	Scope included the site setup, drilling, testing, and demobilization at IRZ-23 on the MW-20 Bench.	November 8, 2018
5h	Scope included the site setup, drilling, testing, and demobilization at MW-M in the upland.	January 15, 2019
5i	Scope included the site setup, drilling, testing, and demobilization at IRZ-9 in the floodplain.	November 28, 2018
5j	Scope included the site setup, drilling, testing, and demobilization at IRZ-25 on the MW-20 Bench.	December 3, 2018
5k	Scope included the site setup, drilling, testing, and demobilization at IRZ-21 on the MW-20 Bench.	December 9, 2018
5l	Scope included the site setup, drilling, testing, and demobilization at MW-B in the floodplain.	December 10, 2018
Addendum to ERTC #5l	Scope included the setup of an additional temporary equipment and material staging area in the floodplain.	December 13, 2018
5m	Scope included the site setup, drilling, testing, and demobilization at MW-F along NTH.	December 17, 2018
5n	Scope included the site setup, drilling, testing, and demobilization at IRZ-11 in the floodplain.	December 17, 2018
5o	Scope included the site setup, drilling, testing, and demobilization at MW-X and MW-Y' in Arizona.	April 23, 2019
5p	Scope included the site setup, drilling, testing, and demobilization at MW-G along NTH.	January 14, 2019
5q	Scope included the site setup, drilling, testing, and demobilization at IRZ-16 and IRZ-17 in the floodplain.	February 14, 2019
5r	Scope included the site setup, drilling, testing, and demobilization at IRZ-27 and IRZ-29 along NTH. Also included in the scope are potholing activities along Pipeline C Segments C13, C15, and C16 and on the MW-20 Bench.	March 9, 2019
Addendum #1 to ERTC #5r	Scope included the potholing to locate Transwestern Gas Pipeline within NTH (in support of Pipeline C installation).	April 24, 2019
Addendum #2 to ERTC #5r	Scope included the installation of NTH IRZ-27/29/31/33/35 and the temporary Frontier bypass.	November 19, 2019
5s	Scope included the site setup, drilling, testing, and demobilization at IRZ-39 in the low area, north of the Transwestern Bench.	March 12, 2019
5t	Scope included the site setup, drilling, testing, and demobilization at IRZ-27 along NTH.	March 19, 2019
5u	Scope included the site setup, drilling, testing, and demobilization at MW-U in I-40 median.	March 22, 2019
5v	Scope included the site setup, drilling, testing, and demobilization at MW-10D in Bat Cave Wash.	March 27, 2019
5w	Scope included the site setup, drilling, testing, and demobilization at MW-W in the floodplain.	March 22, 2019
5x	Scope included the site setup, drilling, testing, and demobilization at RB-1 through 5 wells and MW-O in the floodplain.	March 30, 2019

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
5y	Scope included the site setup, drilling, testing, and demobilization at MW-S on the access road to Bat Cave Wash.	April 12, 2019
5z	Scope included the site setup, drilling, testing, and demobilization at MW-R in the Upland.	May 8, 2019
5aa	Scope included the site setup, drilling, testing, and demobilization at MW-C, MW-D, and MW-H in the floodplain	June 6, 2019
5ab	Scope included the site setup, drilling, testing, and demobilization at IRZ-19 (sonic drilling) in the floodplain	July 22, 2019
5ac	Scope included the site setup, drilling, testing, and demobilization at MW-11D (sonic drilling) in Bat Cave Wash	September 25, 2019
5ad	Scope included the site setup, drilling, testing, and demobilization at Hydro-6a monitoring well in Arizona	October 16, 2019
5ae	Scope included the site setup, drilling, testing, and demobilization at MW-70BRd in East Ravine	October 4, 2019
5ag	Scope included the site setup, drilling, testing, and demobilization at IRZ-18 on MW-20 Bench	November 15, 2019

Note: ERTC 5af is reserved for MW-Z and is under preparation

Table 2-2 Summary of Work Variance Requests (WVRs)

November 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

WVR No.	Brief Description of Work Variance Request	Approval Dates
1	<p>This WVR addressed PG&E's proposed modification to the brine tanks containment for use by the remedy, specifically:</p> <ul style="list-style-type: none"> • Upgrade the existing lined containment to concrete - The original synthetic liner material has degraded from exposure to UV light, heat, and abrasion and must be replaced. PG&E proposed to replace the synthetic-lined containment (including K-rails) with a concrete containment to support the groundwater remedy. The concrete color will be desert tan, and information on this proposed concrete color will be submitted to the agencies for review. The proposed concrete material will be similar to the material of the truck lane in the final remedy design (see Appendix E of the Final Basis of Design Report (CH2M, 2015a),* Section 033 00, Cast-In-Place Concrete). • Shorten the length of the containment - This containment will have the same height as the existing containment, but with a slightly smaller footprint (the length is 5 feet shorter). This smaller footprint still meets the required volume for a secondary containment and allows for more space for remedy construction at the tight MW-20 bench. 	<p>DOI approved WVR #1 on June 22, 2018</p> <p>DTSC approved WVR #1 on July 5, 2018</p>
2	<p>PG&E proposed to relocate the tie-in point for remedy construction water to an aboveground location inside TCS and below the TCS Water Storage Tanks. This is to eliminate the risk of damaging the existing pressurized 6-inch water line and to avoid any interference with PG&E Gas Operations control of the Station's water supply. The WVR addressed this relocation, specifically:</p> <ul style="list-style-type: none"> • Relocate the construction water tie-in point to an aboveground location below the TCS Water Storage Tanks, inside TCS – The final design calls for the temporary construction water line to hot-tap into the existing 6-inch steel water line just as the line turns southwest to continue to TCS. PG&E proposed to move the tie-in point to an aboveground valve manifold, located below the TCS Water Storage Tanks in the boneyard area. • Extend the temporary construction water line to the new tie-in point, along Pipeline 300A access road – The planned 4-inch high-density polyethylene (HDPE) temporary construction water line will be extended, following the route of the Pipeline 300A access road, to the new tie-in point inside TCS. This pipeline extension is approximately 1,950 feet and is also made of 4-inch HDPE. The pipe will be laid on ground surface and to the south of the 6-inch water line where possible. At the crossing with the SoCal Gas pipeline access road, the pipeline will be at grade with fill to allow for vehicle crossing. 	<p>DOI/DTSC approved WVR #2 on August 29, 2018</p>
3	<p>PG&E proposed changes within the CHQ fence line to avoid/minimize the overall amount of soil disturbance during construction, reduce the number of truck trips to haul wastewater, and allow for additional working space within the yard. There are no proposed changes to the CHQ footprint nor its fence line. The specifics are described below:</p> <ul style="list-style-type: none"> • Relocate the decontamination pad from the western fence to the northern fence (near the western corner). Based on recent survey data collected during construction, the difference in ground elevation between northern and southern end of the pad is about 4 feet. Moving the pad to the northern fence would eliminate the difference in ground elevation and reduce the amount of soil disturbance by at least 80 cubic yards. • Bring the remedy-produced wastewater tank from belowground to aboveground, increase the tank volume from 1,000 to 2,500 gallons, and place the aboveground, double-walled tank adjacent to the decontamination pad. The change from belowground to aboveground reduces the amount of soil disturbance by at least 50 cubic yards. The change to a bigger tank will reduce the amount of truck trips needed to haul wastewater. The placement of the tank adjacent to the decontamination pad allows for the pad to function as a secondary containment for the haul truck during off-loading of the wastewater. • Defer construction of the underground sewage tanks. Deferral of the underground tanks reduces the overall amount of soil disturbance by at least 800 cubic yards. All sanitary wastes will be managed in aboveground sewage tanks (similar to the ones currently used for the SPY trailers) or portable toilets. • Swap the location of the construction trailers and the sunshade and change the configuration of the sunshade from a rectangle to a square. This change will allow for more working space within the CHQ. All functions that would occur in the Workshop/Sampling Processing building will be conducted in the construction trailers. 	<p>DOI/DTSC approved WVR #3 on January 4, 2019</p>

WVR No.	Brief Description of Work Variance Request	Approval Dates
4	PG&E proposed to revise a segment of Pipeline C near the I-40 bridge, to meet the permit requirement in Caltrans Encroachment Permit No. 08-18-6-MW-0533. The revision involves relocating a small segment of Pipeline C to within National Trails Highway to meet a minimum distance of 10 feet from current and future I-40 bridge footings. The treatment measure specified for Segment X of National Trails Highway in the Cultural and Historic Property Management Plan will be implemented during installation of this pipeline segment.	DOI/DTSC approved WVR #4 on May 14, 2019
5	PG&E proposed to phase the remedy produced water conditioning system within the approved footprint inside TCS.	DOI and DTSC approved WVR #5 on July 19 and July 22, 2019, respectively.
6	<p>In early October 2018, PG&E conducted a geotechnical investigation along the Pipeline F alignment on the entrance road to the Topock Compressor Station (TCS) and the adjacent hill side. Based on the geotechnical results, the construction contractor (PIVOX) indicated that soldier piles and lagging would be required for temporary shoring. Over 40 soldier piles would be installed by drilling using a 330-sized excavator or larger. A 330-sized excavator has a general width of 11 feet, and counter weight clearance of approximately 4 feet. During operation, this rig would occupy a minimum 15 to 16 feet width of the TCS entrance road for about 12 days. The paved width of the road is between 22 to 24 feet in the area of shoring (per review of the location via Google Earth).</p> <p>Assuming a minimum clearance of 1 foot (which is still less than the recommended clearance) from any operating equipment, there will be approximately 5 to 8 feet of available lane width for access by TCS traffic. Large vehicles (tractor-trailers, delivery trucks, construction equipment) will likely not be able to pass by the active operation, and passenger vehicles may also not be able to pass the active operation in locations where the road narrows. Also, the excavator cannot be repositioned while soldier piles are being drilled. In sum, access to TCS will be severely restricted for about 12 days. This is not acceptable for Compressor Station operations.</p> <p>Therefore, PG&E proposed to realign Pipeline F (starting from segment F3) along the approved alignment of Pipelines B and J. Construction of Pipelines F, B, and J would occur in the same alignment and at the same time.</p>	DOI and DTSC approved WVR #6 on May 21 and May 22, 2019, respectively.
7	<p>This WVR proposed the following changes to remedy infrastructure at the CHQ and SPY.</p> <ul style="list-style-type: none"> a) Locate all temporary office and break trailers at the SPY. PG&E proposed to keep the three existing office trailers at their current locations in the SPY and add two additional office trailers and one break trailer for workers. The additional trailers will be equipped with aboveground sewage tanks, similar to the existing trailers. They will also be powered by Needles Electric. This will require the original SPY fence line to be extended south/southwest to encompass these trailers and the original truck entrance from National Trails Highway to the access road east of SPY. Neither changes reduce the overall area available for soil storage. b) Eliminate the workshop/sample processing building at the CHQ. The function planned for this building will be moved to the Carbon Amendment building at the MW-20 Bench. Removal of this building reduces the amount of soil disturbance by approximately 334 cubic yards. c) Eliminate the sunshade at the CHQ. The function for the sunshade will be replaced by the break trailer for the workers. Removal of the sunshade reduces the amount of soil disturbance (i.e., installation of the footings) by approximately 14 cubic yards. d) Convert the utility pad at the CHQ to a smaller transformer/electrical panel pad. With the relocation of the six trailers to SPY and elimination of the workshop/sample processing building, PG&E proposed to convert the utility pad to smaller pad for a smaller transformer/electrical panel to serve the remaining trailers at the CHQ. This reduces the amount of soil disturbance by approximately 61 cubic yards. 	DOI and DTSC approved WVR #7 on June 14, 2019.
8	On September 12, 2019, PG&E proposed a WVR to change the alignment of pipeline segment C6 on the eastern slope of the MW-20 Bench. The purpose of the WVR is to reduce the amount of soil disturbance, reduce the number of plants to be removed, reduce the safety risks associated with construction atop the MW-20 bench, and reduce the hazards associated with operation at the MW-20 bench during construction.	DTSC and DOI approved WVR #8 on October 4 and 8, 2019, respectively.

Note:

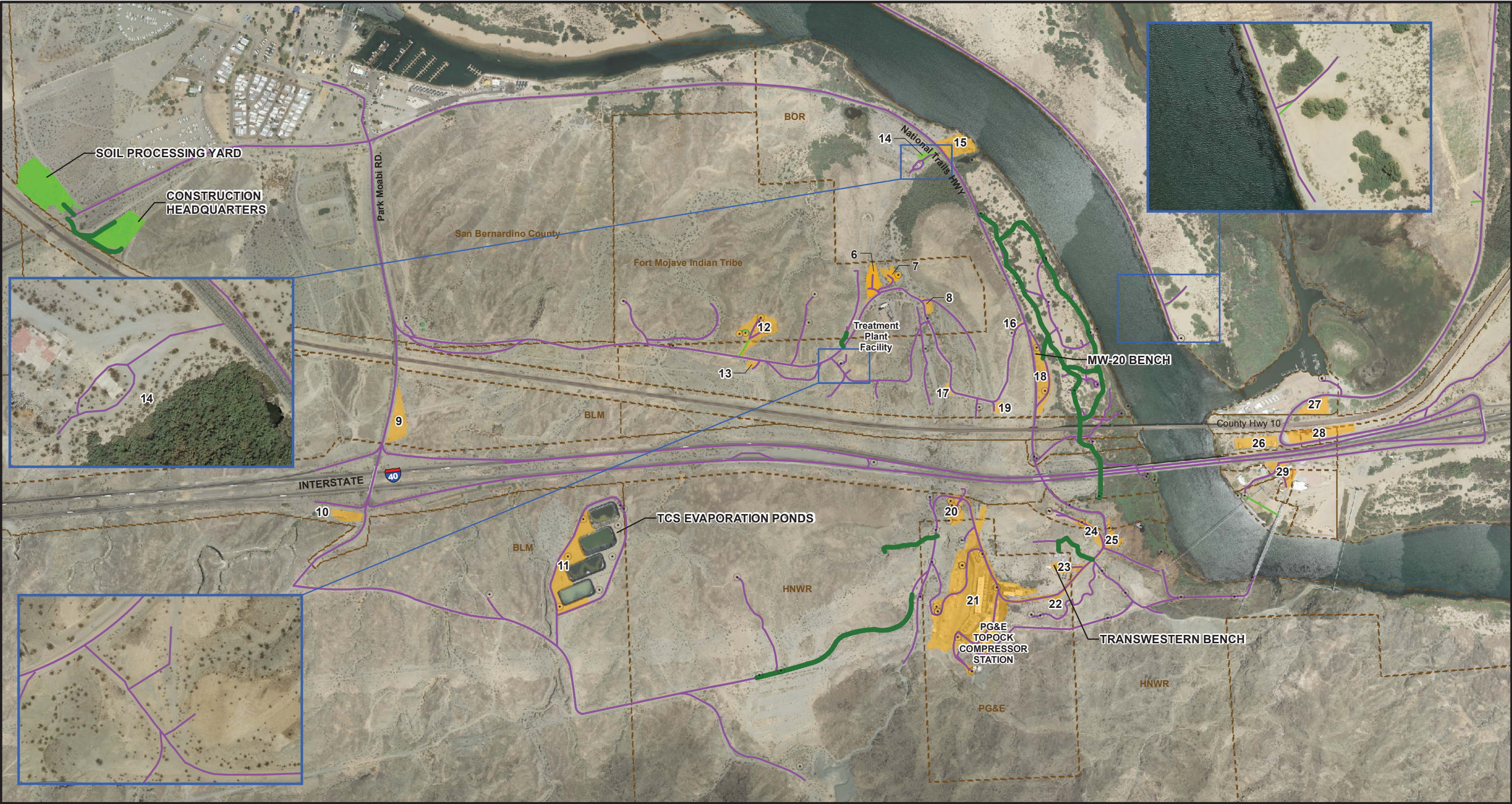
* CH2M HILL, Inc. (CH2M). 2015a. *Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California*. November 18.

Table 2-3 Summary of Percent Completeness of Key Construction Activities

*November 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California*

Activity	% Complete	Current Status of Construction Activities (as of November 30, 2019)
Project signage & Public Information Office	100%	Complete.
Staging Area 9 setup	100%	Complete.
Staging Area 23 setup	100%	Complete.
Staging Area 18 setup	100%	Complete.
Temporary construction offices at Soil Processing Yard	100%	Complete.
Soil Processing Yard setup for construction staging	100%	Complete.
National Trails Highway lane closure and traffic control installation	100%	Complete.
Temporary construction water line	100%	Complete.
TCS Ponds concrete containment pad	100%	Complete.
Construction Headquarters (CHQ) access road	100%	Complete.
Aggregate-based access road in floodplain	Not Available	Portion north of BNSF bridge is substantially complete.
CHQ and SPY security fence	100%	Complete
MW-L, N, E, W, O, R, M, U, 10D, B, H, and Y'	100%	Complete.
MW-F, MW-G, MW-D (rebuilt), MW-C, MW-X, MW-S (new), Hydro-6 monitoring well, MW-70BR, IRZ-37, IRZ-39, RB-2, RB-3	Not Available	Well construction complete. Surface completion will be scheduled when rig is available.
MW-B-33, MW-B-117, and MW-B-337	Not Available	Well construction complete.
MW-B-267 (damaged)	100%	Completed well abandonment. Installation of replacement well complete.
MW-C (shallow, sand entered well casing)	100%	Video log complete. A plug was installed below well screen. Subsequent development was successful.
MW-S (damaged)	100%	Over drill effort unsuccessful. Installation of replacement well complete.
MW-81 (monitoring well installed in the IRZ-19 borehole)	Not Available	Well installation underway
RB-5, RB-4, RB-3, RB-2, IRZ-9, 13, 15, 16, 17, 21, 23, 25, 27, and 39 pilot borings	100%	Complete.
RB-4, RB-5, IRZ-20, IRZ-21, 23, 25, and 39 remedy wells	Not Available	Well construction complete. Well testing ongoing.
IRZ-17	Not Available	Well construction underway.
IRZ-18 (pilot boring)	Not Available	Underway.
Pipeline C Segments C3, C4, C5, C7	Not Available	Substantially complete.
Pipeline C Segments C8 and C14	Not Available	Currently underway.
Brine Tanks containment upgrade	100%	Complete.
Pipeline B and J	Not Available	Started on August 12, 2019. Currently underway.

Figures

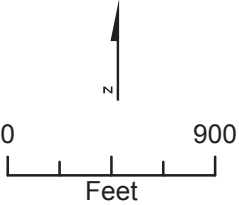


LEGEND

- Existing Access Route (will continue to be used for remedial activities)
- Existing Route (to be used as is for access to remedial activities)
- Roads to be improved or constructed for groundwater remedy
- Soil Processing (Area #5) and Construction Headquarter (Area #4) for Remediation Project
- Staging Areas for Remediation Project

Notes:

- Decontamination pads will be located in Area #4 (Construction Headquarters), Area #21 (Topock Compressor Station), and Area #23 (Transwestern Bench).
- Areas #15, 16, 17, 19, and 20 will not be used as staging areas. Areas #16, 17, and 19 may be part of the primary work zones for remedy infrastructure along the access road.
- Area #20 may be part of the primary work zone for installation of future provisional well IRL-6 (if determined to be needed in the future) and associated piping/concrete/vault.
- Public roadways outside of the EIR project area and the APE can also be used for remedy implementation.



**FIGURE 2.1-1
CONSTRUCTION SITE PLAN
AND ACCESS ROUTES**
GROUNDWATER REMEDY CONSTRUCTION/
PHASE 1
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

Property Boundaries

Existing Wells:

- Extraction Well
- Injection Well
- Monitoring Well
- Water Supply Well

Planned Wells:

- Extraction, National Trails Highway (NTH) In-situ Reactive Zone (IRZ)
- Extraction, Riverbank
- Injection, NTH IRZ
- Injection, Topock Compressor Station
- Remedy Monitoring Well
- Recirculation Well

Pipeline Corridor for Remedy

- Aboveground Pipe
- Underground Pipe/Conduit

Remedy Facilities

- Planned Transformer
- Future Provisional Transformer
- Proposed Remedy Structure

Note:

- Note that in compliance with EIR mitigation measure CUL-1a-9, as well as PA and CHPMP mitigation measures, the pipeline along the dirt road west of National Trails Hwy is located in an existing, previously disturbed, access road. In addition, the location of the road and pipeline was field verified and does not create any direct physical impact or effect on the Topock Maze, as it is manifested archaeologically, in compliance with EIR mitigation measure CUL-1a-10, PA, and CHPMP mitigation measures.
- All well and structure locations are approximate.

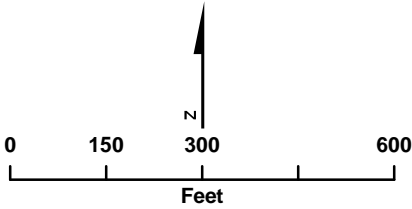


FIGURE 2-2
WELL AND PIPELINE LOCATIONS
GROUNDWATER REMEDY PHASE 1 CONSTRUCTION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Attachment A

Photographs



Photo showing compaction of access road on top of Pipeline C14



Photo showing sand shading and stacking of conduits along Pipeline C14



Photo showing construction traffic near well IRZ-17 in the floodplain



Photo showing loading of material at SPY into dump truck for transport to Pipeline C



Photo showing drill rig at Hydro-6 drill site



Photo showing a development rig at well IRZ-39



Photo showing pipe placement at C8 in the floodplain



Photo showing application of SoilTac (a soil binder used for dust suppression) along Pipeline B



Photo showing preparation for sampling of stained soil encountered in the westernmost reach of Pipeline B



Photo showing sampling of stained soil encountered at Pipeline B.

Attachment B
Available Boring Logs, Well Construction
Logs, Groundwater Sample Results from
Well Drilling, and Well Testing Activities

**(Logs and Well Testing Plans/Results are Presented in
Separate PDFs)**

Table B-1. Groundwater Sampling Results

*November 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California*

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-10D	MW-10D-041119	04/11/19	Vertical aquifer sample collected at 108 – 123 feet	160	160
MW-10D	MW-10D-VAS-107-112	04/01/19	Vertical aquifer sample collected at 107 – 112 feet	95	96
MW-10D	MW-10D-VAS-118-123	04/02/19	Vertical aquifer sample collected at 118 - 123 feet	200	190
MW-11D	MW-11D-VAS-122-127	10/07/19	Vertical aquifer sample collected at 122 - 127 feet	120	92
MW-11D	MW-11D-VAS-152-157	10/07/19	Vertical aquifer sample collected at 152 - 157 feet	1.1	10
MW-11D	MW-11D-VAS-177-182	10/08/19	Vertical aquifer sample collected at 177 - 182 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-11D	MW-11D-VAS-67-72	10/06/19	Vertical aquifer sample collected at 67 - 72 feet	370	370
MW-11D	MW-11D-VAS-92-97	10/06/19	Vertical aquifer sample collected at 92 - 97 feet	99	72
MW-B	MW-B-VAS-27-32	01/06/19	Vertical aquifer sample collected at 27 - 32 feet	Estimated concentration of 5.9 micrograms per liter	Estimated concentration of 7.7 micrograms per liter
MW-B	MW-B-VAS-47-52	01/09/19	Vertical aquifer sample collected at 47 - 52 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-67-72	01/09/19	Vertical aquifer sample collected at 67 – 72 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-102-107	01/10/19	Vertical aquifer sample collected at 102 – 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-142-147	01/15/19	Vertical aquifer sample collected at 142 – 147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-182-187	02/13/19	Vertical aquifer sample collected at 182 - 187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-207-212	02/14/19	Vertical aquifer sample collected at 207 - 212 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-B	MW-B-VAS-247-252	02/17/19	Vertical aquifer sample collected at 247 - 252 feet	Estimated concentration of 11 micrograms per liter	Not detected below reporting limit of 0.83 microgram per liter
MW-B	MW-B-VAS-264-269	02/18/19	Vertical aquifer sample collected at 264 - 269 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.33 microgram per liter
MW-B	MW-B-VAS-287-292	02/20/19	Vertical aquifer sample collected at 287 - 292 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-317-322	02/21/19	Vertical aquifer sample collected at 317 - 322 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-VAS-339-344	02/27/19	Vertical aquifer sample collected at 339 - 344 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.33 microgram per liter
MW-B	MW-B-VAS-352-357	02/28/19	Vertical aquifer sample collected at 352 - 357 feet	Estimated concentration of 0.603 micrograms per liter	Not detected below reporting limit of 0.33 microgram per liter
MW-B	MW-B-117-033019	03/30/19	Sample collected from well development at 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-33-033119	03/31/19	Sample collected from well development at 33 feet	3.7	2.3
MW-B	MW-B-337-062619-INTERIM	6/26/19	Sample collected from well development	Estimated concentration of 0.255 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-337-090719	9/7/2019	Sample collected from well development	Estimated concentration of 0.251 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-26-31	6/19/19	Vertical aquifer sample collected at 26-31 feet	360	380
MW-C	MW-C-VAS-51-56	6/25/19	Vertical aquifer sample collected at 51-56 feet	Estimated concentration of 0.13 micrograms per liter	Estimated concentration of 0.146 microgram per liter
MW-C	DUP-01-062519	6/25/19	Vertical aquifer sample collected at 51-56 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.0931 microgram per liter
MW-C	MW-C-VAS-66-71	6/26/19	Vertical aquifer sample collected at 66-71 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-C	MW-C-VAS-81-86	6/27/19	Vertical aquifer sample collected at 81-86 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-C	MW-C-VAS-117-122	6/28/19	Vertical aquifer sample collected at 117-122 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-147-152	6/29/19	Vertical aquifer sample collected at 147-152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-165-170	6/30/19	Vertical aquifer sample collected at 165-170 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-176-181	7/1/19	Vertical aquifer sample collected at 176-181 feet	380	410
MW-C	MW-C-VAS-186-191	7/1/19	Vertical aquifer sample collected at 186-191 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-200-205	7/2/19	Vertical aquifer sample collected at 200-205 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-VAS-216-221	7/3/19	Vertical aquifer sample collected at 216-221 feet	Estimated concentration of 0.448 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-156-081519	8/15/2019	Sample collected from well development	Data not yet available	Not detected below reporting limit of 0.17 microgram per liter
MW-C	MW-C-181-082019	8/20/2019	Sample collected from well development	280	280
MW-C	MW-C-218-082219	8/22/2019	Sample collected from well development	39	40
MW-C	MW-C-39-090519	9/5/2019	Sample collected from well development	14	16
MW-D	MW-D-VAS-30-35	08/10/19	Vertical aquifer sample collected at 30-35	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-46-51	08/11/19	Vertical aquifer sample collected at 46-51 feet	Estimated concentration of 0.558 micrograms per liter	0.47
MW-D	MW-D-VAS-91-96	08/12/19	Vertical aquifer sample collected at 91-96 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-D	MW-D-VAS-131-136	08/21/19	Vertical aquifer sample collected at 131-136 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.066 microgram per liter
MW-D	MW-D-VAS-141-146	08/22/19	Vertical aquifer sample collected at 141-146 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-D	MW-D-VAS-151-156	08/22/19	Vertical aquifer sample collected at 151 - 156 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-161-166	08/23/19	Vertical aquifer sample collected at 161 - 166 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-171-176	08/23/19	Vertical aquifer sample collected at 171 - 176 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-181-186	08/24/19	Vertical aquifer sample collected at 181 - 186 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-VAS-191-196	08/25/19	Vertical aquifer sample collected at 191 - 196 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-102-100219	10/02/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-D	MW-D-158-092419	09/24/19	Sample collected from well development	Estimated concentration of 0.203 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-D	MW-D-187-092519	09/25/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-E	MW-E-VAS-52-57	11/05/18	Vertical aquifer sample collected at 52 - 57 feet	7800	7000
MW-E	MW-E-VAS-82-87	11/06/18	Vertical aquifer sample collected at 82 - 87 feet	190	200
MW-E	MW-E-VAS-112-117	11/06/18	Vertical aquifer sample collected at 112 - 117 feet	3000	3100
MW-E	MW-E-VAS-137-142	11/07/18	Vertical aquifer sample collected at 137 - 142 feet	7900	7300
MW-E	MW-E-70-121418	12/14/18	Sample collected from well development at a depth of 70 feet	Data not available	3000
MW-E	MW-E-142-121418	12/14/18	Sample collected from well development at a depth of 142 feet	4500	4200
MW-F	MW-F-VAS-52-57	01/06/19	Vertical aquifer sample collected at 52 - 57 feet	2700	2500
MW-F	MW-F-VAS-82-87	01/07/19	Vertical aquifer sample collected at 82 - 87 feet	120	110

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-F	MW-F-VAS-97-102	01/07/19	Vertical aquifer sample collected at 97 - 102 feet	1900	1800
MW-F	MW-F-VAS-112-117	01/08/19	Vertical aquifer sample collected at 112 - 117 feet	790	740
MW-F	MW-F-104-022719	02/27/19	Sample collected from well development at a depth of 104 feet	1800	1700
MW-F	MW-F-60-022819	02/28/19	Sample collected from well development at a depth of 60 feet	2300	2200
MW-G	MW-G-VAS-52-57	02/13/19	Vertical aquifer sample collected at 52 - 57 feet	790	680
MW-G	MW-G-VAS-67-72	02/14/19	Vertical aquifer sample collected at 67 - 72 feet	1000	920
MW-G	MW-G-VAS-77-82	02/15/19	Vertical aquifer sample collected at 77 - 82 feet	710	600
MW-G	MW-G-82-030219	03/02/19	Sample collected from well development at a depth of 82 feet	1500	1500
MW-G	MW-G-57-030219	03/02/19	Sample collected from well development at a depth of 57 feet	510	560
MW-H	MW-H-VAS-32-37	8/7/2019	Vertical aquifer sample collected at 32 - 37 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-47-52	8/7/2019	Vertical aquifer sample collected at 47-52 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-82-87	08/08/19	Vertical aquifer sample collected at 82-87 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-H	MW-H-VAS-112-117	08/09/19	Vertical aquifer sample collected at 112-117 feet	8.1	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-142-147	08/10/19	Vertical aquifer sample collected at 142-147 feet	Estimated concentration of 18 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-152-157	08/10/19	Vertical aquifer sample collected at 152-157 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-162-167	08/11/19	Vertical aquifer sample collected at 162-167 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-H	MW-H-VAS-172-177	08/12/19	Vertical aquifer sample collected at 172-177 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-182-187	08/13/19	Vertical aquifer sample collected at 182-187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-VAS-192-197	08/14/19	Vertical aquifer sample collected at 192-197 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-112-092019	09/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-168-092119	09/21/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-198-092219	09/22/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-H	MW-H-46-091919	09/19/19	Sample collected from well development	19	1.4
MW-L	MW-L-VAS-76-81	10/06/18	Vertical aquifer sample collected at 76 - 81 feet	8.1	31
MW-L	MW-L-VAS-106-111	10/09/18	Vertical aquifer sample collected at 106 - 111 feet	Estimated concentration of 0.697 micrograms per liter	0.84
MW-L	MW-L-VAS-141-146	10/10/18	Vertical aquifer sample collected at 141 - 146 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-L	MW-L-VAS-181-186	10/20/18	Vertical aquifer sample collected at 181 - 186 feet	3.8	3.3
MW-L	MW-L-VAS-218-223	10/21/18	Vertical aquifer sample collected at 218 - 223 feet	68	66
MW-L	MW-L-VAS-261-266	10/22/18	Vertical aquifer sample collected at 261 - 266 feet	0.284 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-L	MW-L-180-032819	03/28/19	Sample collected from well development at a depth of 180 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-L	MW-L-245-030319	03/03/19	Sample collected from well development at a depth of 245 feet	14	15
MW-L	MW-L-90-032919	03/29/19	Sample collected from well development at a depth of 90 feet	19	18

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-L	MW-L-225-032919	03/29/19	Sample collected from well development at a depth of 225 feet	410	380
MW-M	MW-M-VAS-52-57	03/28/19	Vertical aquifer sample collected at 52 - 57 feet	29	28
MW-M	MW-M-VAS-72-77	03/29/19	Vertical aquifer sample collected at 72 - 77 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-VAS-107-112	03/30/19	Vertical aquifer sample collected at 107 - 112 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-VAS-147-152	03/31/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-M	MW-M-VAS-172-177	04/02/19	Vertical aquifer sample collected at 172 - 177 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-VAS-190-195	04/10/19	Vertical aquifer sample collected at 190 - 195 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-M	MW-M-132-061519	6/16/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-M	MW-M-193-061419	6/14/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-M	MW-M-57-061719	6/17/19	Sample collected from well development	Estimated concentration of 0.715 micrograms per liter	0.72
MW-M	MW-M-95-061619	6/16/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-N	MW-N-VAS-121-126	02/14/19	Vertical aquifer sample collected at 121 - 126 feet	Estimated concentration of 0.699 micrograms per liter	0.51
MW-N	MW-N-VAS-142-147	02/16/19	Vertical aquifer sample collected at 142 - 147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-N	MW-N-VAS-173-178	02/18/19	Vertical aquifer sample collected at 173 - 178 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-N	MW-N-VAS-210-215	02/21/19	Vertical aquifer sample collected at 210 - 215 feet	320	290

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-N	MW-N-VAS-228-233	02/26/19	Vertical aquifer sample collected at 228 – 233 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-N	MW-N-217-040219	04/02/19	Sample collected from well development at a depth of 217 feet	110	110
MW-N	MW-N-237-040119	04/01/19	Sample collected from well development at a depth of 237 feet	1600	1500
MW-N	MW-N-129-040319	04/03/19	Sample collected from well development at a depth of 129 feet	45	46
MW-O	MW-O-VAS-101-106	05/10/19	Vertical aquifer sample collected at 101 - 106 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-O	MW-O-VAS-106-111	05/11/19	Vertical aquifer sample collected at 106 - 111 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-O	MW-O-VAS-12.5-17.5	05/08/19	Vertical aquifer sample collected at 12 - 18 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.163 J
MW-O	MW-O-VAS-136-141	05/11/19	Vertical aquifer sample collected at 136 - 141 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-O	MW-O-VAS-51-56	05/09/19	Vertical aquifer sample collected at 51 - 56 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-O	MW-O-VAS-66-71	05/09/19	Vertical aquifer sample collected at 66 - 71 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.178 J
MW-O	MW-O-140-071819	7/18/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-O	MW-O-30-071719	7/17/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-O	MW-O-66-071519	7/15/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-92-97	05/13/19	Vertical aquifer sample collected at 92 - 97 feet	42	45
MW-R	MW-R-VAS-117-122	05/14/19	Vertical aquifer sample collected at 117 - 122 feet	4.6	5.8

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-R	MW-R-VAS-151-156	05/15/19	Vertical aquifer sample collected at 151 - 156 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-192-197	05/16/19	Vertical aquifer sample collected at 192 - 197 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-227-232	05/17/19	Vertical aquifer sample collected at 227 - 232 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-VAS-255-260	05/29/19	Vertical aquifer sample collected at 255 - 260 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-R	MW-R-VAS-269-274	05/30/19	Vertical aquifer sample collected at 269 - 274 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-R	MW-R-109-062819	6/28/19	Sample collected from well development	2.6	2.5
MW-R	MW-R-139-071319	7/13/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-192-070219	7/2/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-R	MW-R-275-070919	7/9/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-S	MW-S-VAS-107-112	09/24/19	Vertical aquifer sample collected at 107 - 112 feet	20	15
MW-S	MW-S-VAS-92-97	09/22/19	Vertical aquifer sample collected at 92 - 97 feet	25	26
MW-W	MW-W-VAS-7-12	03/27/19	Vertical aquifer sample collected at 7 - 12 feet	Estimated concentration of 0.266 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-W	MW-W-VAS-22-27	03/28/19	Vertical aquifer sample collected at 22 - 27 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-W	MW-W-31-040419	04/04/19	Sample collected from well development at a depth of 31 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-12-17	06/25/19	Vertical aquifer sample collected at 12-17 feet	1.2	Not detected below reporting limit of 0.033 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-X	MW-X-VAS-32-37	06/26/19	Vertical aquifer sample collected at 32-37 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-71-76	6/27/19	Vertical aquifer sample collected at 71 - 76 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-107-112	6/27/19	Vertical aquifer sample collected at 107-112 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-112-117	6/28/19	Vertical aquifer sample collected at 112-117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-152-157	6/29/19	Vertical aquifer sample collected at 152-157 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-182-187	6/29/19	Vertical aquifer sample collected at 182-187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-207-212	6/30/19	Vertical aquifer sample collected at 207-212 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-245-250	7/1/19	Vertical aquifer sample collected at 245-250 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-VAS-292-297	7/2/19	Vertical aquifer sample collected at 292-297 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-337-342	7/11/19	Vertical aquifer sample collected at 337-342 feet	Estimated concentration of 0.564 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-382-387	7/13/19	Vertical aquifer sample collected at 382-387 feet	Estimated concentration of 0.582 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-VAS-412-417	7/15/19	Vertical aquifer sample collected at 412-417 feet	38	Not detected below reporting limit of 0.17 microgram per liter
MW-Y'	MW-Y-VAS-12-17	08/20/19	Vertical aquifer sample collected at 12-17 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-52-57	08/21/19	Vertical aquifer sample collected at 52-57 feet	Estimated concentration of 0.378 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-92-97	08/22/19	Vertical aquifer sample collected at 92 - 97 feet	Estimated concentration of 0.620 micrograms per liter	0.31

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
MW-Y'	MW-Y-VAS-98-103	08/23/19	Vertical aquifer sample collected at 98 - 103 feet	Estimated concentration of 0.521 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-VAS-112-117	08/23/19	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-VAS-137-142	04/12/19	Vertical aquifer sample collected at 137 - 142 feet	Estimated concentration of 0.818 micrograms per liter	1.4
MW-U	MW-U-VAS-181-186	04/13/19	Vertical aquifer sample collected at 181 - 186 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.112 J
MW-U	MW-U-VAS-222-227	04/14/19	Vertical aquifer sample collected at 222 - 227 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-VAS-257-262	04/16/19	Vertical aquifer sample collected at 257 - 262 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.0896 J
MW-U	MW-U-VAS-287-292	04/17/19	Vertical aquifer sample collected at 287 - 292 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-VAS-317-322	04/24/19	Vertical aquifer sample collected at 317 - 322 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-U	MW-U-183-050819	05/08/19	Sample collected from well development at a depth of 183 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-U	MW-U-273-051019	05/10/19	Sample collected from well development at a depth of 273 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-9	IRZ-9-VAS-27-32	12/03/18	Vertical aquifer sample collected at 27 -32 feet	120	120
IRZ-9	IRZ-9-VAS-47-52	12/04/18	Vertical aquifer sample collected at 47 -52 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-9	IRZ-9-VAS-62-67	12/04/18	Vertical aquifer sample collected at 62 -67 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-9	IRZ-9-VAS-182-187	12/11/18	Vertical aquifer sample collected at 182 -187 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-207-212	12/13/18	Vertical aquifer sample collected at 207 -212 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-9	IRZ-9-VAS-232-237	12/13/18	Vertical aquifer sample collected at 232 -237 feet	Estimated concentration of 0.811 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-264-269	12/15/18	Vertical aquifer sample collected at 264 -269 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-276-281	12/16/18	Vertical aquifer sample collected at 276 -281 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-9	IRZ-9-VAS-292-297	12/18/18	Vertical aquifer sample collected at 292 -297 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-32-37	11/17/18	Vertical aquifer sample collected at 32 - 37 feet	170	220
IRZ-13	IRZ-13-VAS-57-62	11/18/18	Vertical aquifer sample collected at 57 - 62 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-102-107	11/19/18	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-142-147	11/19/18	Vertical aquifer sample collected at 142 - 147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-13	IRZ-13-VAS-180-185	11/27/18	Vertical aquifer sample collected at 180 - 185 feet	230	190
IRZ-13	IRZ-13-VAS-197-202	11/28/18	Vertical aquifer sample collected at 197 - 202 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.83 microgram per liter
IRZ-13	IRZ-13-VAS-224-229	11/28/18	Vertical aquifer sample collected at 224 - 229 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.83 microgram per liter
IRZ-13	IRZ-13-VAS-237-242	11/29/18	Vertical aquifer sample collected at 237 - 242 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-15	IRZ-15-VAS-32-37	11/01/18	Vertical aquifer sample collected at 32 - 37 feet	13	13
IRZ-15	IRZ-15-VAS-62-67	11/02/18	Vertical aquifer sample collected at 62 - 67 feet	Not detected below reporting limit of 0.65 microgram per liter	Estimated concentration of 0.459 J
IRZ-15	IRZ-15-VAS-102-107	11/03/18	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.65 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-15	IRZ-15-VAS-132-137	11/04/18	Vertical aquifer sample collected at 132 - 137 feet	Estimated concentration of 0.228 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-15	IRZ-15-VAS-162-167	11/05/18	Vertical aquifer sample collected at 162 - 167 feet	3400	3200
IRZ-15	IRZ-15-VAS-182-187	11/06/18	Vertical aquifer sample collected at 182 - 187 feet	130	140
IRZ-15	IRZ-15-VAS-222-227	11/07/18	Vertical aquifer sample collected at 222 - 227 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-16	IRZ-16-VAS-27-32	02/20/19	Vertical aquifer sample collected at 27 - 32 feet	480	480
IRZ-16	IRZ-16-VAS-57-62	02/20/19	Vertical aquifer sample collected at 57 - 62 feet	Not detected below reporting limit of 0.033 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-16	IRZ-16-VAS-102-107	02/21/19	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.033 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-16	IRZ-16-VAS-132-137	02/26/19	Vertical aquifer sample collected at 132 - 137 feet	Not detected below reporting limit of 0.17 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-16	IRZ-16-VAS-147-152	02/27/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.17 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-16	IRZ-16-VAS-172-177	02/27/19	Vertical aquifer sample collected at 172 - 177 feet	110	110
IRZ-16	IRZ-16-VAS-192-197	02/28/19	Vertical aquifer sample collected at 192 - 197 feet	Not detected below reporting limit of 0.17 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-32-37	03/02/19	Vertical aquifer sample collected at 32 - 37 feet	78	67
IRZ-17	IRZ-17-VAS-62-67	03/02/19	Vertical aquifer sample collected at 62 - 67 feet	Estimated concentration of 0.750 micrograms per liter	Estimated concentration of 0.604 J
IRZ-17	IRZ-17-VAS-102-107	03/03/19	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-132-137	03/13/19	Vertical aquifer sample collected at 132 - 137 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-137-142	03/12/19	Vertical aquifer sample collected at 137 - 142 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.13 microgram per liter
IRZ-17	IRZ-17-VAS-142-147	03/04/19	Vertical aquifer sample collected at 142 - 147 feet	68	84

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-17	IRZ-17-VAS-147-152	03/12/19	Vertical aquifer sample collected at 147 - 152 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-17	IRZ-17-VAS-152-157	03/04/19	Vertical aquifer sample collected at 152 - 157 feet	16	7.0
IRZ-17	IRZ-17-VAS-162-167	03/04/19	Vertical aquifer sample collected at 162 - 167 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-17	IRZ-17-VAS-172-177	03/05/19	Vertical aquifer sample collected at 172 - 177 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-122-127	9/8/2019	Vertical aquifer sample collected at 122 - 127 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-131-136	9/9/2019	Vertical aquifer sample collected at 131-136 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-142-147	9/9/2019	Vertical aquifer sample collected at 142-147 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-152-157	9/10/2019	Vertical aquifer sample collected at 152 - 157 feet	Estimated concentration of 0.187 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-162-167	9/11/2019	Vertical aquifer sample collected at 162 - 167 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-177-182	9/12/2019	Vertical aquifer sample collected at 177 - 182 feet	Estimated concentration of 0.275 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-19	IRZ-19-VAS-27-32	9/6/2019	Vertical aquifer sample collected at 27 - 32 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-19	IRZ-19-VAS-37-42	9/6/2019	Vertical aquifer sample collected at 37 - 42 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-19	IRZ-19-VAS-82-87	9/7/2019	Vertical aquifer sample collected at 82 - 87 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-20	IRZ-17-VAS-197-202	03/06/19	Vertical aquifer sample collected at 197 - 202 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-17-VAS-217-222	03/06/19	Vertical aquifer sample collected at 217 - 222 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-20-VAS-112-117	10/22/18	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-20	IRZ-20-VAS-131-136	10/23/18	Vertical aquifer sample collected at 131 - 136 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-20	IRZ-20-VAS-173-178	10/24/18	Vertical aquifer sample collected at 173 - 178 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.83 microgram per liter
IRZ-21	IRZ-21-VAS-52-57	12/15/18	Vertical aquifer sample collected at 52 - 57 feet	100	97
IRZ-21	IRZ-21-VAS-77-82	12/16/18	Vertical aquifer sample collected at 77 - 82 feet	1.3	1.1
IRZ-21	IRZ-21-VAS-112-117	12/16/18	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-21	IRZ-21-VAS-132-137	12/17/18	Vertical aquifer sample collected at 132 - 137 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-21	IRZ-21-VAS-147-152	12/18/18	Vertical aquifer sample collected at 147 - 152 v	4000	3600
IRZ-23	IRZ-23-VAS-67-72	12/01/18	Vertical aquifer sample collected at 67 - 72 feet	86	85
IRZ-23	IRZ-23-VAS-92-97	12/01/18	Vertical aquifer sample collected at 92 - 97 feet	Estimated concentration of 0.453 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-23	IRZ-23-VAS-122-127	12/02/18	Vertical aquifer sample collected at 122 - 127 feet	2100	2000
IRZ-23	IRZ-23-VAS-139-144	12/02/18	Vertical aquifer sample collected at 139 - 144 feet	3400	3000
IRZ-25	IRZ-25-VAS-52-57	12/05/18	Vertical aquifer sample collected at 52 - 57 feet	4300	3500
IRZ-25	IRZ-25-VAS-67-72	12/05/18	Vertical aquifer sample collected at 67 - 72 feet	750	620
IRZ-25	IRZ-25-VAS-92-97	12/06/18	Vertical aquifer sample collected at 92 - 97 feet	140	130
IRZ-25	IRZ-25-VAS-112-117	12/11/18	Vertical aquifer sample collected at 112 - 117 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-25	IRZ-25-VAS-147-152	12/11/18	Vertical aquifer sample collected at 147 - 152 feet	3800	3600

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
IRZ-25	IRZ-25-VAS-162-167	12/13/18	Vertical aquifer sample collected at 162 - 167 feet	3000	3000
IRZ-27	IRZ-27-VAS-52-57	03/15/19	Vertical aquifer sample collected at 52 - 57 feet	4500	4400
IRZ-27	IRZ-27-VAS-72-77	03/17/19	Vertical aquifer sample collected at 72 - 77 feet	Estimated concentration of 0.338 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-27	IRZ-27-VAS-102-107	03/18/19	Vertical aquifer sample collected at 102 - 107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-27	IRZ-27-VAS-132-137	03/20/19	Vertical aquifer sample collected at 132 - 137 feet	1200	1300
IRZ-37	IRZ-37-VAS-52-57	10/06/19	Vertical aquifer sample collected at 52 – 57 feet	1100	1000
IRZ-37	IRZ-37-VAS-57-62	10/07/19	Vertical aquifer sample collected at 57 – 62 feet	1200	1100
IRZ-39	IRZ-39-VAS-27-32	03/30/19	Vertical aquifer sample collected at 27 - 32 feet	31	29
RB-2	RB-2-VAS-102-107	7/1/19	Vertical aquifer sample collected at 102-107 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-2	RB-2-VAS-142-147	7/9/19	Vertical aquifer sample collected at 142-147 feet	Estimated concentration of 0.270 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-172-177	7/12/19	Vertical aquifer sample collected at 172-177 feet	Estimated concentration of 0.233 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-202-207	7/14/19	Vertical aquifer sample collected at 202-207 feet	Estimated concentration of 0.218 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-237-242	7/15/19	Vertical aquifer sample collected at 237-242 feet	Estimated concentration of 0.233 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-274-279	7/18/19	Vertical aquifer sample collected at 274-279 feet	Estimated concentration of 0.514 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-287-292	7/26/19	Vertical aquifer sample collected at 287-292 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-2	RB-2-VAS-36.5-41.5	6/29/19	Vertical aquifer sample collected at 36 – 42 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter

Location	Sample ID	Sample Date	Sample Depth Interval in feet below ground surface	Total Dissolved Chromium Concentration in microgram per liter	Hexavalent Chromium Concentration in microgram per liter
RB-2	RB-2-VAS-72-77	6/30/19	Vertical aquifer sample collected at 72 – 77 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-3	RB-3-VAS-15-20	04/26/19	Vertical aquifer sample collected at 15 - 20 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-3	RB-3-VAS-50-55	04/27/19	Vertical aquifer sample collected at 50 - 55 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.100 micrograms per liter
RB-3	RB-3-VAS-80-85	04/27/19	Vertical aquifer sample collected at 80 - 85 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.132 micrograms per liter
RB-3	RB-3-VAS-120-125	04/28/19	Vertical aquifer sample collected at 120 - 125 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-3	RB-3-VAS-150-155	04/29/19	Vertical aquifer sample collected at 150 - 155 feet	Estimated concentration of 0.257 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-3	RB-3-VAS-180-185	04/29/19	Vertical aquifer sample collected at 180 - 185 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-3	RB-3-VAS-205-210	04/30/19	Vertical aquifer sample collected at 205 - 210 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-4	RB-4-VAS-15-20	04/12/19	Vertical aquifer sample collected at 15 - 20 feet	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.0556 microgram per liter
RB-4	RB-4-VAS-41-46	04/12/19	Vertical aquifer sample collected at 41 - 46 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-4	RB-4-VAS-81-86	04/12/19	Vertical aquifer sample collected at 81 - 86 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-4	RB-4-VAS-121-126	04/13/19	Vertical aquifer sample collected at 121 - 126	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-4	RB-4-VAS-136-141	04/13/19	Vertical aquifer sample collected at 136 - 141 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
RB-4	RB-4-VAS-155-160	04/17/19	Vertical aquifer sample collected at 155 - 160 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter

Attachment C
Soil Sampling Locations and Available Soil
Analytical Results
(Soil Data Presented in Excel File)

Dishcharge Monitoring Record



PGE Project / Property Name: Topock Final Remedy

Project Number: ARC-18-T46

Project Number: ARC-18-T46

Affected System:

Up to 6/5/19 - Pipeline C5 STA 17+80 to C3 14+85

Week of 10/7/19 - Pipeline C5 STA 17+80 to C7 STA 20+20

Discharge Date	C6 Discharge Location - Approximate QTY (gal)	C5 Discharge Location - Approximate QTY (gal)	C7 Discharge Location and Line G - Approximate QTY (gal)	Discharge Monitor Initials*
5/17/2019	6,300	--		ST
5/20/2019	1,800	5400		ST
5/21/2019	2,700	--		ST
5/22/2019	3,100	3,000		ST
5/23/2019	--	4,500		ST
5/24/2019	--	4,500		ST
5/28/2019	--	300		ST
6/4/2019	--	300		DZ
6/5/2019	--	800		DZ
10/7/2019			50 gallons (Note: 750 gallons captured and used for dust suppression)	DZ
10/8/2019			100 gallons (350 gallons captured and used for dust suppression)	DZ
10/9/2019			70 gallons (230 gallons captured and used for dust suppression)	DZ

* By signing this record form, I acknowledge that all ground discharge has been observed and monitored for the following compliance requirements:

- a.No ponding of discharge water
- b.No attracting wildlife
- c.No channelizing of discharge water and runoff outside of work area
- d.No water discharged to washes or jurisdictional waters

Attachment D
Perimeter Air Sampling Analytical Results

Attachment D. Perimeter Air Sampling Analytical Results

In conformance with the approved *Construction/Remedial Action Work Plan for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California* (CH2M, 2015), air monitoring has been conducted during construction to evaluate the ongoing effectiveness of the dust control program, to guide modifications to field activities and engineering control measures, if necessary, and to document that construction activities do not result in the migration of soil contaminants beyond the work area boundaries.

Perimeter air monitoring has been performed if construction activities have the potential to generate visible dust. The air monitoring program consists of both real-time fugitive dust monitoring and perimeter air sampling for select soil contaminants. Locations to be monitored and sampled are as follows:

- Real-time fugitive dust monitoring is performed at the perimeter of the work areas (outside of the exclusion zone) that have the potential to generate visible dust, including the Construction Headquarters (CHQ) and the Soil Processing Yard (SPY).
- Perimeter air sampling for hexavalent chromium is performed at the perimeter of the work areas (outside of the exclusion zone) that are inside Areas of Concern (AOCs) within the construction footprint where hexavalent chromium concentrations in soil have been historically reported. Air sampling for hexavalent chromium in the SPY will be performed when soil from AOCs with reported concentrations of hexavalent chromium is actively being processed. Air sampling may also be performed at other work areas at the site based on hexavalent chromium concentrations reported from new soil data or based on field observations during construction activities.
- Air sampling for asbestos will be limited to work areas where Asbestos Containing Material (ACM) has been observed in prior field investigations, including two areas in AOC 12 and one area in AOC 4. Perimeter air monitoring may also be performed at other work areas at the site if ACM is discovered during construction activities.

Project-specific levels of concern (LOC) and action levels were developed as an indicator to determine whether additional dust control measures, as presented in the project's Dust Control Plan required by the Mojave Desert Air Quality Management District (MDAQMD), are necessary.

- The LOCs, which represent conservative concentrations of compounds that receptors outside the work area could be safely exposed to during construction, have been evaluated for all compounds that have been detected in soil samples collected at the site in the prior investigations. The LOCs were developed using standard U.S. Environmental Protection Agency (USEPA) and California Environmental Protection Agency risk assessment methodology, toxicology data, and exposure assumptions (USEPA, 2009, 2017; California Department of Toxic Substances Control [DTSC], 2018). Both cancer and noncancer health effects were considered. For each type of health effect, the LOC was back-calculated from an established target or from acceptable cancer risk or noncancer hazard where USEPA or DTSC toxicity values are available. The LOCs for cancer effects are based on a target excess cancer risk of one in a million (1×10^{-6}). The LOCs for noncancer effects are based on a target hazard quotient of 1. The LOCs were developed using these assumptions:
 - Receptors are present outside the perimeter of the work areas
 - Exposure via inhalation is 10 hours per day for a 10 days on /4 days off schedule
 - Duration of Phase 1 of the final groundwater remedy construction is 20 months
- The action level for fugitive dust monitoring is 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for a net (downwind minus upwind) dust concentration. This action level is based on MDAQMD Rule 403, Part C. A 10-hour time-weighted average of readings collected throughout the work day will be used to document compliance with MDAQMD Rule 403.
- For analytes detected in soil, the following equation was used to calculate maximum allowable airborne particulate concentrations for receptor exposure outside the work area (based on the approach presented by Marlowe (1999):

$$AL = \frac{LOC \times 1,000,000 \text{ mg/kg}}{CS}$$

Where:

AL = action level for airborne particulates ($\mu\text{g}/\text{m}^3$)

LOC = Project specific risk-based level of concern ($\mu\text{g}/\text{m}^3$)

CS = maximum detected concentration of compound in site soil (milligrams per kilogram [mg/kg])

Action levels were determined as follows:

- Soil data from prior investigations were gathered for the entire site.
- Sample locations within the maximum construction footprint were evaluated. Some sample locations were removed from evaluation as they were within the compressor station in locations where no construction activities will actually occur.
- The maximum reported soil concentration for each compound was determined and then used to calculate an airborne particulate action level.
- All compounds had allowable airborne particulate action levels greater than $100 \mu\text{g}/\text{m}^3$ except for hexavalent chromium at a few locations.
- Lead does not have USEPA or DTSC toxicity values; however, an action level was calculated using the DTSC (2011) LeadSpread 8 model. This is based on the maximum reported soil concentration for lead of 1,400 mg/kg from samples collected within the construction footprint and a blood level of concern through inhalation of 1 microgram per deciliter. The resulting action level for lead is $548 \mu\text{g}/\text{m}^3$.
- Therefore, keeping fugitive dust below the action level $100 \mu\text{g}/\text{m}^3$ will result in airborne particulate concentrations of contaminants (other than hexavalent chromium) remaining below their respective LOCs.
- Fugitive dust monitoring will be used to evaluate airborne contaminants in dust for all compounds except for hexavalent chromium.

In November 2019, 70 real time dust observation/monitoring events were conducted at the perimeter of the work areas (outside of the exclusion zone). There was no exceedance of the action level for fugitive dust monitoring ($100 \mu\text{g}/\text{m}^3$).

Two perimeter air sampling events were conducted in November 2019 (November 4 and 6) during drilling activities at MW-70BR in AOC 10 (East Ravine). Table 1 presents analytical results from air sampling events that are available at this time. The available November 2019 results are below the LOC for hexavalent chromium which is $0.00094 \mu\text{g}/\text{m}^3$.

References Cited:

California Department of Toxic Substances Control (DTSC). 2011. LeadSpread 8.
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Table D-1. Perimeter Air Sampling Results

November 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California

Location ID	Location	Sampling Date	Hexavalent Chromium Concentration in micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	11/04/2019	0.0000696 - concentration estimated by laboratory or data validation
AOC10-D2	AOC10 Downwind 2	11/04/2019	0.0000781 - concentration estimated by laboratory or data validation
AOC10-U1	AOC10 Upwind	11/04/2019	0.0000609 - concentration estimated by laboratory or data validation
AOC10-D1	AOC10 Downwind 1	11/06/2019	0.0000602 - concentration estimated by laboratory or data validation
AOC10-D2	AOC10 Downwind 2	11/06/2019	0.0000582 - concentration estimated by laboratory or data validation
AOC10-U1	AOC10 Upwind	11/06/2019	0.0000401 - concentration estimated by laboratory or data validation
AOC10-D1	AOC10 Downwind 1	10/18/2019	Not detected at a reporting limit of 0.0000347 micrograms per cubic meter
AOC10-D2	AOC10 Downwind 2	10/18/2019	Not detected at a reporting limit of 0.0000375 micrograms per cubic meter
AOC10-U1	AOC10 Upwind	10/18/2019	Not detected at a reporting limit of 0.0000386 micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	10/17/2019	0.0000321 - concentration estimated by laboratory or data validation
AOC10-D2	AOC10 Downwind 2	10/17/2019	Not detected at a reporting limit of 0.0000321 micrograms per cubic meter
AOC10-U1	AOC10 Upwind	10/17/2019	Not detected at a reporting limit of 0.0000322 micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	10/15/2019	Not detected at a reporting limit of 0.0000324 micrograms per cubic meter
AOC10-D2	AOC10 Downwind 2	10/15/2019	Not detected at a reporting limit of 0.0000331 micrograms per cubic meter
AOC10-U1	AOC10 Upwind	10/15/2019	Not detected at a reporting limit of 0.0000316 micrograms per cubic meter
PIPE B-D1	PIPE B Downwind 1	8/13/2019	Not detected at a reporting limit of 0.0000276 micrograms per cubic meter
PIPE B-D2	PIPE B Downwind 2	8/13/2019	Not detected at a reporting limit of 0.0000276 micrograms per cubic meter
PIPE B-U1	PIPE B Upwind	8/13/2019	Not detected at a reporting limit of 0.0000276 micrograms per cubic meter
PIPE B-D1	PIPE B Downwind 1	8/12/2019	Not detected at a reporting limit of 0.0000278 micrograms per cubic meter
PIPE B-D2	PIPE B Downwind 2	8/12/2019	0.000035 - concentration estimated by laboratory or data validation
PIPE B-U1	PIPE B Upwind	8/12/2019	Not detected at a reporting limit of 0.0000279 micrograms per cubic meter

Location ID	Location	Sampling Date	Hexavalent Chromium Concentration in micrograms per cubic meter
AOC30-D1	AOC30 Downwind 1	6/18/2019	0.0000407 - concentration estimated by laboratory or data validation
AOC30-D2	AOC30 Downwind 2	6/18/2019	Not detected at a reporting limit of 0.0000313 micrograms per cubic meter
AOC30-U1	AOC30 Upwind	6/18/2019	Not detected at a reporting limit of 0.000031 micrograms per cubic meter
AOC30-D1	AOC30 Downwind 1	6/17/2019	Not detected at a reporting limit of 0.0000633 micrograms per cubic meter
AOC30-D2	AOC30 Downwind 2	6/17/2019	Not detected at a reporting limit of 0.0000636 micrograms per cubic meter
AOC30-U1	AOC30 Upwind	6/17/2019	Not detected at a reporting limit of 0.0000589 micrograms per cubic meter
AOC4-D1	AOC4 Downwind 1	5/16/2019	0.0000423 - concentration estimated by laboratory or data validation
AOC4-D2	AOC4 Downwind 2	5/16/2019	Not detected at a reporting limit of 0.0000385 micrograms per cubic meter
AOC4-U	AOC4 Upwind	5/16/2019	Not detected at a reporting limit of 0.0000378 micrograms per cubic meter
AOC11-D1	AOC11 Downwind 1	5/15/2019	Not detected at a reporting limit of 0.0000392 micrograms per cubic meter
AOC11-D2	AOC11 Downwind 2	5/15/2019	0.0001262 - concentration estimated by laboratory or data validation
AOC11-U	AOC11 Upwind	5/15/2019	Not detected at a reporting limit of 0.0000386 micrograms per cubic meter
AOC4-D1	AOC4 Downwind 1	5/14/2019	Not detected at a reporting limit of 0.000148 micrograms per cubic meter
AOC4-D2	AOC4 Downwind 2	5/14/2019	Not detected at a reporting limit of 0.000155 micrograms per cubic meter
AOC4-U	AOC4 Upwind	5/14/2019	Not detected at a reporting limit of 0.000148 micrograms per cubic meter
AOC30-IRZ-23-D1	AOC30-IRZ-23 Downwind 1	2/20/2019	Not detected at a reporting limit of 0.0000859 micrograms per cubic meter
AOC30-IRZ-23-D2	AOC30-IRZ-23 Downwind 2	2/20/2019	Not detected at a reporting limit of 0.0000862 micrograms per cubic meter
AOC30-IRZ-23-U1	AOC30-IRZ-23 Upwind	2/20/2019	0.000104 - concentration estimated by laboratory or data validation
AOC13-D1	AOC13 Downwind 1	10/09/18	0.000732 - concentration estimated by laboratory or data validation
AOC13-D2	AOC13 Downwind 2	10/09/18	0.000709 - concentration estimated by laboratory or data validation
AOC13-U	AOC13 Upwind	10/09/18	Not detected at a reporting limit of 0.000172 micrograms per cubic meter

Attachment E
Noise Monitoring Results
(SEIR NOISE-2 Requirement)

Attachment E. Noise Monitoring Results

In conformance with the SEIR Mitigation Measure NOISE-2, noise monitoring has been conducted with ANSI S1.4 Type 1, precision sound level meters when construction activities are within the specified distance (e.g., 1,850 feet from sensitive receptors in California) at approved monitoring locations previously determined in coordination with the Tribes and land owners/managers (refer to Figures 1, 2 and 3). The goal of the noise monitoring is to identify if noise levels from project construction activities exceed applicable standards of the San Bernardino and Mohave County codes. Exceedance of standards would require coordination with the Tribes and land owners/managers to evaluate the potential constraints and locations for temporary engineered acoustical barriers. Consistent with the request of the Tribes, monitoring equipment is not left at the approved monitoring locations, rather it is mounted on a tripod for attended representative measurements and removed when the monitoring event is complete.

When a new construction activity is conducted or a previously monitored construction activity is conducted closer to a noise-sensitive area, monitoring is conducted at more frequent intervals to evaluate the potential need for an acoustical barrier. As the activities continue in the same location and multiple attended measurements indicate that the applicable standard has not been exceeded by the construction activity, periodic attending monitoring events are conducted to confirm continued compliance.

The attended monitoring events document the A-weighted L_{eq} sound level at periodic intervals (e.g., 5, 10, 15, 20, 30, 40, 50 and 60 minutes). The trend of the data at these intervals is evaluated in the field to assess the stability in the sound level to determine the duration of the monitoring event. When this interval data is relatively stable or clearly below the standard, the attended monitoring event will typically be 15 to 30 minutes in duration. As the applicable standards are in terms of the 24-hour average L_{dn} which is based on the L_{eq} metric, the measured L_{eq} is compared to the applicable L_{dn} standard for mobile noise sources (i.e., 60 A-weighted decibels [dBA] for Park Moabi, 65 dBA at all other locations). This results in a reasonable and conservative assessment given construction activities are not emitting noise continuously over a 24-hour period, nor are they occurring during the nighttime hours (10 p.m. to 7 a.m.).

In November 2019, the following monitoring events were conducted:

- Nineteen (19) events at a location west of the mobile home park at Moabi Regional Park. Construction activities closest to this monitoring location include activities at the SPY and CHQ, as well as construction traffic on NTH. The sound level typically varied between 37 and 53 dBA, with an average and median of 46-47 dBA.
- Twenty (20) events at a location in the Upland just off the IM-3 access road, and near the top of the hill closest to the NTH and MW-20 Bench. Construction activities closest to this monitoring location include activities at MW-20 Bench, and construction traffic on the access road. The sound levels varied between 45 and 61 dBA, with an average and median of about 51 and 49 dBA, respectively.
- Twenty (20) events at the old restaurant location west of NTH. Construction activities closest to this monitoring location include construction traffic on NTH and in the northern end of the floodplain. The sound level varied between 43 and 56 dBA, with an average and median of 47-48 dBA.
- Three (3) events at a location along the edge of the Colorado River within the mobile home park at Topock Marina. Construction activities closest to this monitoring location are associated with work at MW-X, MW-Y', and Hydro-6. The sound level typically varied between 47 and 63 dBA, with an average and median of 56-57 dBA. Sound levels spiked when there are boat traffic, train traffic, wildlife activities, and wind gust around the mobile homes.
- A short-term pre-mobilization sound test was conducted at the old restaurant location west of NTH with the drill rig engine at rated load to assess potential compliance with NOISE-2 during drilling of MW-Z, and the potential requirement for a sound barrier.

Sound monitoring will continue as work progresses and moves into new areas to identify when an acoustical barrier needs to be considered.

Attachment F
Discharge Monitoring Record in
compliance with Monitoring and Reporting
Program for Order No. 2003-0003-DWQ
(Table 2)

Attachment G
Six-Week Look-Ahead Schedule

PG&E Topock Final Groundwater Remedy	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Primary Planned Activities	12/8/2019	12/9/2019	12/10/2019	12/11/2019	12/12/2019	12/13/2019	12/14/2019
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	No Work	No Work
Pipeline C Installation F5	--	Pipeline installation @ C8, C7, C14	Pipeline installation @ C8, C7, C14	Pipeline installation @ C8	Pipeline installation @ C8		
TCS Approach Pipeline Installation F5, G5, G6	--	Pipeline installation @ B and J	Pipeline installation @ B and J	Pipeline installation @ B and J	Pipeline installation @ B and J		
TCS Pipeline Preparation G5	--	--	--	--	Mobilization		
MW-20 Bench Facility Construction E5, F5		Mobilization/Site Prep	Mobilization/Site Prep	Mobilization/Site Prep	Mobilization/Site Prep		
Well Installation	IRZ-16 (E5)	IRZ-29 pilot (F5), IRZ-15 (E5)	IRZ-29 pilot (F5), IRZ-15 (E5)	IRZ-29 pilot (F5), IRZ-15 (E5)	--		
Well Development	Hydro-6 (F6)	Hydro-6 (F6)	RB-2 (E5)	RB-2 (E5)	--		
Well Testing	RB-5 (E5)	RB-5 (E5)	RB-5 (E5)	RB-5 (E5)	--		
Primary Planned Activities	12/15/2019	12/17/2019	12/17/2019	12/18/2019	12/19/2019	12/20/2019	12/21/2019
Start Time (PST)	No Work	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	No Work
Pipeline C Installation F5		Pipeline installation prep @ C8-Alt, Node 2 installation	Pipeline installation prep @ C8-Alt, Node 2 installation	Pipeline installation prep @ C8-Alt, Node 2 installation	Pipeline installation prep @ C8-Alt, Node 2 installation	--	
TCS Approach Pipeline Installation F5, G5, G6		Pipeline installation @ B and J	Pipeline installation @ B and J	Pipeline installation @ B and J	Pipeline installation @ B and J	--	
TCS Pipeline Preparation G5		Potholing	Potholing	Potholing	Potholing	Potholing	
MW-20 Bench Facility Construction E5, F5		Facility & yard piping construction	Facility & yard piping construction	Facility & yard piping construction	Facility & yard piping construction	--	
Well Installation		IRZ-29 pilot (F5), IRZ-15 (E5)	IRZ-29 pilot (F5), IRZ-15 (E5)	IRZ-29 pilot (F5), IRZ-15 (E5)	IRZ-31 pilot (F5), IRZ-15 (E5)	IRZ-31 pilot (F5), IRZ-15 (E5)	
Well Development		RB-2 (E5)	RB-2 (E5)	RB-2 (E5)	RB-2 (E5)	RB-2 (E5), MW-70BR (G5)	
Well Testing		RB-4 (E5)	RB-4 (E5)	RB-4 (E5)	RB-4 (E5)	--	
Primary Planned Activities	12/22/2019	12/23/2019	12/24/2019	12/25/2019	12/26/2019	12/27/2019	12/28/2019
Start Time (PST)	No Work	7:00 AM	7:00 AM	No Work	No Work	No Work	No Work
Pipeline C Installation F5		Pipeline installation prep @ & C8-Alt	Pipeline installation prep @ C8-Alt, Demobilization				
TCS Approach Pipeline Installation F5, G5, G6		Pipeline installation @ B and J	Pipeline installation @ B & J, Demobilization				
MW-20 Bench Facility Construction E5, F5		Facility & yard piping construction	Facility & yard piping construction, Demobilization				
Well Installation		--	--				
Well Development		--	--				
Well Testing		--	--				
Primary Planned Activities	12/29/2019	12/30/2019	12/31/2019	1/1/2020	1/2/2020	1/3/2020	1/4/2020
Start Time (PST)	No Work	No Work	No Work	No Work	No Work	No Work	No Work
Pipeline C Installation F5							
TCS Approach Pipeline Installation F5, G5, G6							
MW-20 Bench Facility Construction E5, F5							
Well Installation							
Well Development							
Well Testing							
Primary Planned Activities	1/5/2020	1/6/2020	1/7/2020	1/8/2020	1/9/2020	1/10/2020	1/11/2020
Start Time (PST)	No Work	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation F5		Remobilization and Pipeline installation @ C8-Alt	Pipeline installation @ C8-Alt	Pipeline installation @ C8-Alt	Pipeline installation @ C8-Alt	--	--
TCS Approach Pipeline Installation F5, G5, G6		Remobilization and Pipeline installation @ J	Pipeline installation @ J	Pipeline installation @ J	Pipeline installation @ J	--	--
MW-20 Bench Facility Construction E5, F5		Remobilization, Facility & yard piping construction	Facility & yard piping construction	Facility & yard piping construction	Facility & yard piping construction	--	--
Well Installation		--	IRZ-31 pilot (F5), IRZ-15 (E5)	IRZ-31 pilot (F5), IRZ-15 (E5)	IRZ-31 pilot (F5), IRZ-15 (E5)	IRZ-33 pilot (F5), IRZ-15 (E5)	IRZ-33 pilot (F5), IRZ-15 (E5)
Well Development		--	MW-81 (E5), MW-70BR (G5)	MW-81 (E5), MW-70BR (G5)	MW-81 (E5), MW-70BR (G5)	MW-81 (E5)	IRZ-17 (E5)
Well Testing		--	--	--	--	RB-2 (E5)	RB-2 (E5)
Primary Planned Activities	1/12/2020	1/13/2020	1/14/2020	1/15/2020	1/16/2020	1/17/2020	1/18/2020
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	No Work	No Work
Pipeline C Installation F5	--	Pipeline installation @ C8-Alt	Pipeline installation @ C8-Alt	Pipeline installation @ C8-Alt	Pipeline installation @ C8-Alt		
TCS Approach Pipeline Installation F5, G5, G6	--	Pipeline installation @ J	Pipeline installation @ J	Pipeline installation @ J	Pipeline installation @ J		
MW-20 Bench Facility Construction E5, F5	--	Facility & yard piping construction	Facility & yard piping construction	Facility & yard piping construction	Facility & yard piping construction		
Well Installation	IRZ-33 pilot (F5), IRZ-15 (E5)	IRZ-33 pilot (F5), IRZ-27 (F5)	IRZ-33 pilot (F5), IRZ-27 (F5)	IRZ-35 pilot (F5), IRZ-27 (F5)	IRZ-35 pilot (F5), IRZ-27 (F5)		
Well Development	IRZ-17 (E5)	IRZ-17 (E5)	IRZ-17 (E5)	IRZ-17 (E5)	IRZ-17 (E5)		
Well Testing	RB-2 (E5)	RB-2 (E5)	IRZ-17 (E5)	IRZ-17 (E5)	IRZ-17 (E5)		


The timing of field activities are estimated and may change day-to-day based on site conditions, field progress, or other factors.
When planning to visit the site to observe a specific activity or area, please contact Curt Russell (760-791-5884) for the latest schedule information.
"G5" - Intrusive work location as described on the project grid map. See Project Grid Map tab for location of grid positions provided on the lookahead




Attachment H
Available Groundwater Monitoring Data
(DTSC Condition of Approval xi)

Attachment H. Available Groundwater Monitoring Data


Pursuant to Condition of Approval # xi in DTSC's approval letter dated August 24, 2018 (DTSC, 2018a), PG&E is required to report data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection. In compliance with this requirement, PG&E initially submitted validated data to DTSC via monthly emails. For ease of recordkeeping and to minimize the number of ad-hoc compliance reports/emails, PG&E has since included validated data in each monthly progress report starting with the November 2018 report.

<div><div><div>Design & Consultancy for natural and built assets</div></div><div>Lab</div></div>						ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description						Alkalinity, total as CaCO3 SM 2320 B mg/L	Antimony, dissolved SW 6020 ug/L	Arsenic, dissolved SW 6020 ug/L	Barium, dissolved SW 6020 ug/L	Beryllium, dissolved SW 6020 ug/L	Boron, dissolved SW 6010B mg/L	Bromide EPA 300.0 mg/L	Cadmium, dissolved SW 6020 ug/L	Calcium, dissolved SW 6010B mg/L	Chloride EPA 300.0 mg/L	Chromium, Hexavalent EPA 218.6 ug/L
Method						Unit										
Date																
Sampled																
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled											
MW-09	MW-09-1019	N	LF	GW	9/30/2019	130		1.7			0.72	ND (1.0)		140	740	130
MW-10	MW-10-1019	N	LF	GW	9/30/2019	120	ND (0.5)	2.1	49	ND (2.5)	0.79	ND (2.5)	ND (0.5)	140	610	110
MW-11	MW-11-1019	N	LF	GW	9/30/2019	93		1.3			0.45	ND (2.5)		150	590	44



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BCW 2019-10 Sampling						Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	
						Description	Chromium, total dissolved SW 6020 ug/L	Cobalt, dissolved SW 6020 ug/L	Copper, dissolved SW 6020 ug/L	Iron, dissolved SW 6010B ug/L	Lead, dissolved SW 6020 ug/L	Magnesium, dissolved SW 6010B mg/L	Manganese, dissolved SW 6020 ug/L	Mercury, dissolved EPA 7470A ug/L	Molybdenum, dissolved SW 6020 ug/L	Nickel, dissolved SW 6020 ug/L	Nitrate/Nitrite as Nitrogen SM 4500-NO3 F mg/L
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled	Unit											
MW-09	MW-09-1019	N	LF	GW	9/30/2019		150			ND (20)		31	ND (0.5)		4.8		11
MW-10	MW-10-1019	N	LF	GW	9/30/2019		110	ND (0.5)	ND (1.0)	36	ND (1.0)	21	ND (0.5)	ND (0.2)	18	8.5	11
MW-11	MW-11-1019	N	LF	GW	9/30/2019		47			ND (20)		23	ND (0.5)		5.3		5.2



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built assets

BCW 2019-10 Sampling						Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	
						Description	Selenium, dissolved SW 6020 ug/L	Silver, dissolved SW 6020 ug/L	Sodium, dissolved SW 6010B mg/L	Specific conductance EPA 120.1 uS/cm	Sulfate EPA 300.0 mg/L	Thallium, dissolved SW 6020 ug/L	Total dissolved solids SM 2540 C mg/L	Vanadium, dissolved SW 6020 ug/L	Zinc, dissolved SW 6020 ug/L
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled	Unit									
MW-09	MW-09-1019	N	LF	GW	9/30/2019		5.8		420	2,700	240		1,700		
MW-10	MW-10-1019	N	LF	GW	9/30/2019		6.3	ND (0.5)	330	2,400	260	ND (0.5)	1,500	14	ND (10)
MW-11	MW-11-1019	N	LF	GW	9/30/2019		4.7		240	2,200	180		1,400		



Lab
Description
Method
Unit

ASSET
Alkalinity, total as CaCO3 SM 2320 B mg/L

ASSET

Aluminum,
dissolved
EPA 200.7
ug/L

ASSET
Antimony, dissolved EPA 200.8 ug/L

ASSET	
Arsenic dissolve EPA 200 ug/L	

	ASSE
	Barium dissolv EPA 20 ug/l

ASS	Beryl disso EPA 2 ua
-----	-------------------------------

T	AS
um,	Bo
red	diss
0.8	EPA
	m

on, lved 00.7 /L	Ca di EP
---------------------------	----------------


SSSET	
mium, solved 200.8 g/L	E

ASSET	
calcium, dissolved A 200.7 mg/L	

ASSET

Chloride
PA 300.0
mg/L

[illegible]



Design & Consultancy
for natural and
built assets

CMP 2019-10 Sampling

Lab

Description

Method

Unit

ASSET

Chromium,
Hexavalent
EPA 218.6
ug/L

ASSET

Chromium,
total dissolved
EPA 200.8
ug/L

ASSET

Cobalt,
dissolved
EPA 200.8
ug/L

ASSET

Copper,
dissolved
EPA 200.8
ug/L

ASSET

Fluoride
EPA 300.0
mg/L

ASSET

Iron
SW 6010B
ug/L

ASSET

Iron, dissolved
EPA 200.7
ug/L

ASSET

Lead,
dissolved
EPA 200.8
ug/L


ASSET


Magnesium,
dissolved
EPA 200.7
mg/L

ASSET

Manganese,
dissolved
EPA 200.8
ug/L

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled											
CW-01D	CW-01D-LF-Q419	N	LF		GW	10/2/2019	0.49	ND (1.0)	ND (0.5)	2.8	3	27	20	ND (1.0)	18	ND (0.5 J)	
CW-01M	CW-01M-LF-Q419	N	LF		GW	10/2/2019	0.72	ND (1.0)	ND (0.5)	ND (1.0)	2.2	20	21	ND (1.0)	12	ND (0.5)	
CW-02D	CW-02D-LF-Q419	N	LF		GW	10/2/2019	0.88	1.7	ND (0.5)	1.3	2	23 J	110	ND (1.0)	4	ND (0.5)	
CW-02D	MW-903-Q419	FD		CW-02D-LF-Q419	GW	10/2/2019	0.84	1.5	0.73	2.1	2.1	1,100 J	72	ND (1.0)	4	ND (0.5)	
CW-02M	CW-02M-LF-Q419	N	LF		GW	10/2/2019	1.2	1.1	ND (0.5)	ND (1.0)	3.1	90	ND (20)	ND (1.0)	8.6	ND (0.5)	
CW-03D	CW-03D-LF-Q419	N	LF		GW	10/2/2019	0.56	ND (1.0)	ND (0.5)	ND (1.0)	2.8	65	26	ND (1.0)	4.2	ND (0.5)	
CW-03M	CW-03M-LF-Q419	N	LF		GW	10/2/2019	3.7	7.3	ND (0.5)	1.5	4.2	300	70	ND (1.0)	11	ND (0.5)	
CW-04D	CW-04D-LF-Q419	N	LF		GW	10/1/2019	0.43	ND (1.0)	ND (0.5)	ND (1.0)	3.3	31 J	ND (20)	ND (5.0)	8.5	ND (0.5)	
CW-04M	CW-04M-LF-Q419	N	LF		GW	10/1/2019	0.97	7.8	ND (0.5)	ND (1.0)	2.6	4,500	74	ND (5.0)	13	ND (0.5)	
OW-01D	OW-01D-Q419	N	LF		GW	10/3/2019	0.57	ND (1.0)	ND (0.5)	ND (1.0)	2.8	ND (20)	20	ND (1.0)	23	ND (0.5)	
OW-01D	MW-904-Q419	FD		OW-01D-Q419	GW	10/3/2019	0.54	ND (1.0)	ND (0.5)	ND (1.0)	2.8	ND (20)	22	ND (1.0)	24	ND (0.5)	
OW-01M	OW-01M-Q419	N	LF		GW	10/3/2019	2.5	2.8	ND (0.5)	ND (1.0)	2.3	370	24	ND (1.0)	28	ND (0.5)	
OW-01S	OW-01S-Q419	N	3V		GW	10/3/2019	7.4	17			1.5		81				
OW-02D	OW-02D-Q419	N	LF		GW	10/3/2019	1.5	2.4	ND (0.5)	6.6	2.5	1,100	56	ND (1.0)	24	ND (0.5)	
OW-02M	OW-02M-Q419	N	LF		GW	10/3/2019	1.9	1.5	ND (0.5)	ND (1.0)	2.2	44	22	ND (1.0)	27	ND (0.5)	
OW-02S	OW-02S-Q419	N	LF		GW	10/3/2019	15	16			3.5						
OW-05D	OW-05D-Q419	N	LF		GW	10/3/2019	0.29	ND (1.0)	ND (0.5)	ND (1.0)	2.3	ND (20)	21	ND (1.0)	23	ND (0.5)	
OW-05M	OW-05M-LF-Q419	N	LF		GW	10/3/2019	0.5	ND (1.0)	ND (0.5)	ND (1.0)	2.5	ND (20)	ND (20)	ND (1.0)	22	ND (0.5)	
OW-05M	MW-905-Q419	FD		OW-05M-LF-Q419	GW	10/3/2019	0.5	ND (1.0)	ND (0.5)	ND (1.0)	2.4	ND (20)	ND (20)	ND (1.0)	23	ND (0.5)	
OW-05S	OW-05S-LF-Q419	N	LF		GW	10/3/2019	12	12			1.8						

<div><div><div>Design & Consultancy for natural and built assets</div></div><div>CMP 2019-10 Sampling</div></div> <div>Lab</div>							ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description Method Unit							Mercury, dissolved EPA 245.1 ug/L	Molybdenum, dissolved EPA 200.8 ug/L	Nickel, dissolved EPA 200.8 ug/L	Nitrate/Nitrite as Nitrogen SM 4500-NO3 F mg/L	Potassium, dissolved EPA 200.7 mg/L	Selenium, dissolved EPA 200.8 ug/L	Silver, dissolved EPA 200.8 ug/L	Sodium, dissolved EPA 200.7 mg/L	Specific conductance EPA 120.1 uS/cm	Sulfate EPA 300.0 mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled										
CW-01D	CW-01D-LF-Q419	N	LF		GW	10/2/2019	ND (0.2)	22	ND (1.0)	2.7	12	3.9	ND (0.5)	1,400	7,300	490
CW-01M	CW-01M-LF-Q419	N	LF		GW	10/2/2019	ND (0.2)	16	ND (1.0)	3	11 J	3.6	ND (0.5)	1,200	7,500	490
CW-02D	CW-02D-LF-Q419	N	LF		GW	10/2/2019	ND (0.2)	13	1	2.9	11	3.5	ND (0.5)	1,400	7,400	470
CW-02D	MW-903-Q419	FD		CW-02D-LF-Q419	GW	10/2/2019	ND (0.2)	13	1.1	3	11	3.8	ND (0.5)	1,300	7,400	470
CW-02M	CW-02M-LF-Q419	N	LF		GW	10/2/2019	ND (0.2)	16	ND (1.0)	2.9	11	2.9	ND (0.5)	1,300	7,300	460
CW-03D	CW-03D-LF-Q419	N	LF		GW	10/2/2019	ND (0.2)	15	ND (1.0)	3.3	11	3.4	ND (0.5)	1,200	7,400	460
CW-03M	CW-03M-LF-Q419	N	LF		GW	10/2/2019	ND (0.2)	30	1.5	2.4	9	2.6	ND (0.5)	1,100	8,000	490
CW-04D	CW-04D-LF-Q419	N	LF		GW	10/1/2019	ND (0.2)	18	ND (1.0)	2.7	9.7	4.1	ND (0.5)	1,100	7,400	480
CW-04M	CW-04M-LF-Q419	N	LF		GW	10/1/2019	ND (0.2)	14	7.8	3.4	13	3.6	ND (0.5)	1,300	7,000	470
OW-01D	OW-01D-Q419	N	LF		GW	10/3/2019	ND (0.2)	20	ND (1.0)	2.9	12	4	ND (0.5)	1,100	7,500	500
OW-01D	MW-904-Q419	FD		OW-01D-Q419	GW	10/3/2019	ND (0.2)	20	ND (1.0)	2.9	12	3.8	ND (0.5)	1,100	7,400	510
OW-01M	OW-01M-Q419	N	LF		GW	10/3/2019	ND (0.2)	13	1.1	3	13	3.7	ND (0.5)	1,200	7,500	490
OW-01S	OW-01S-Q419	N	3V		GW	10/3/2019		7.6		3.2				680	5,700	350
OW-02D	OW-02D-Q419	N	LF		GW	10/3/2019	ND (0.2)	22	3.9	3.1	14	4.2	ND (0.5)	1,300	7,200	470
OW-02M	OW-02M-Q419	N	LF		GW	10/3/2019	ND (0.2)	19	ND (1.0)	2.8	11	4.3	ND (0.5)	1,100	7,400	450
OW-02S	OW-02S-Q419	N	LF		GW	10/3/2019		23		3.1				560	3,500	160
OW-05D	OW-05D-Q419	N	LF		GW	10/3/2019	ND (0.2)	21	ND (1.0)	2.6	13	4.3	ND (0.5)	1,300	7,300	480
OW-05M	OW-05M-LF-Q419	N	LF		GW	10/3/2019	ND (0.2)	24	ND (1.0)	2.8	13	3.7	ND (0.5)	1,400	7,300	480
OW-05M	MW-905-Q419	FD		OW-05M-LF-Q419	GW	10/3/2019	ND (0.2)	24	ND (1.0)	2.8	11	3.6	ND (0.5)	1,200	7,300	480
OW-05S	OW-05S-LF-Q419	N	LF		GW	10/3/2019		12		3				520	5,000	320

<div><div><div>Design & Consultancy for natural and built assets</div></div><div>CMP 2019-10 Sampling</div></div>							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	CTBERK
							Description Method Unit	Thallium, dissolved EPA 200.8 ug/L	Total dissolved solids SM 2540 C mg/L	Turbidity SM 2130 B NTU	Vanadium, dissolved EPA 200.8 ug/L	Zinc, dissolved EPA 200.8 ug/L	Ammonia as nitrogen A4500NH mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
CW-01D	CW-01D-LF-Q419	N	LF		GW	10/2/2019	ND (0.5)	4,100	0.45	2.2	ND (10 J)	0.13	
CW-01M	CW-01M-LF-Q419	N	LF		GW	10/2/2019	ND (0.5)	4,200	0.14	2.6	ND (10)	0.09 J	
CW-02D	CW-02D-LF-Q419	N	LF		GW	10/2/2019	ND (0.5)	4,100	0.78 J	4.5	ND (10)	0.06 J	
CW-02D	MW-903-Q419	FD		CW-02D-LF-Q419	GW	10/2/2019	ND (0.5)	3,900	27 J	5	ND (10)	0.11	
CW-02M	CW-02M-LF-Q419	N	LF		GW	10/2/2019	ND (0.5)	4,100	2.1	3.8	ND (10)	0.14	
CW-03D	CW-03D-LF-Q419	N	LF		GW	10/2/2019	ND (0.5)	4,100	2.8	2.7	ND (10)	0.09 J	
CW-03M	CW-03M-LF-Q419	N	LF		GW	10/2/2019	ND (0.5)	4,300	4	3.3	ND (10)	0.07 J	
CW-04D	CW-04D-LF-Q419	N	LF		GW	10/1/2019	ND (2.5)	4,200	0.53	2.6	ND (10)	0.07 J	
CW-04M	CW-04M-LF-Q419	N	LF		GW	10/1/2019	ND (2.5)	4,200	52	3.3	ND (10)	0.05 J	
OW-01D	OW-01D-Q419	N	LF		GW	10/3/2019	ND (0.5)	4,000	0.39	3.3	ND (10)	0.04 J	
OW-01D	MW-904-Q419	FD		OW-01D-Q419	GW	10/3/2019	ND (0.5)	4,300	0.33	3.3	ND (10)	0.03 J	
OW-01M	OW-01M-Q419	N	LF		GW	10/3/2019	ND (0.5)	4,300	6.1	4	ND (10)	0.04 J	
OW-01S	OW-01S-Q419	N	3V		GW	10/3/2019		3,600	4.4				
OW-02D	OW-02D-Q419	N	LF		GW	10/3/2019	ND (0.5)	4,100	24	2	17	0.04 J	
OW-02M	OW-02M-Q419	N	LF		GW	10/3/2019	ND (0.5)	4,300	0.53	3.4	ND (10)	0.09 J	
OW-02S	OW-02S-Q419	N	LF		GW	10/3/2019		2,000	1.2				
OW-05D	OW-05D-Q419	N	LF		GW	10/3/2019	ND (0.5)	4,100	0.25	3.7	ND (10)	0.15 J	
OW-05M	OW-05M-LF-Q419	N	LF		GW	10/3/2019	ND (0.5)	4,200	0.29	2.3	ND (10)	0.08 J	
OW-05M	MW-905-Q419	FD		OW-05M-LF-Q419	GW	10/3/2019	ND (0.5)	4,200	0.48	2.3	ND (10)	0.08 J	
OW-05S	OW-05S-LF-Q419	N	LF		GW	10/3/2019		3,600	0.77				

PMP 2019-10 Sampling

Lab						ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description						Alkalinity, total as	Calcium,	Chloride	Chromium,	Chromium, total	Iron, dissolved	Magnesium,	Manganese,	Nitrate/Nitrite as
Method						CaCO3	dissolved	EPA 300.0	Hexavalent	dissolved	EPA 200.7	dissolved	dissolved	Nitrogen
Unit						SM 2320 B	EPA 200.7	mg/L	EPA 218.6	EPA 200.8	EPA 200.7	EPA 200.7	EPA 200.8	SM 4500-NO3 F
						mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled									
PE-01	PE-01-1019	N	G	GW	10/3/2019	250	130	800	ND (0.2)	ND (1.0)	1,100	32	420	ND (0.05)
TW-03D	TW-03D-1019	N	G	GW	10/3/2019	170	200	2,000	410	430	ND (20)	25	ND (0.5)	2.8


PMP 2019-10 Sampling

						Lab	ASSET	ASSET	ASSET	ASSET	ASSET
						Description	pH	Sodium,	Specific	Sulfate	Total dissolved
						Method	SM 4500-H+ B	dissolved	conductance	EPA 300.0	solids
						Unit	PHUNITS	EPA 200.7	EPA 120.1	mg/L	SM 2540 C
								mg/L	uS/cm		mg/L
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled						
PE-01	PE-01-1019	N	G	GW	10/3/2019	7.5	300		3,300	290	2,000
TW-03D	TW-03D-1019	N	G	GW	10/3/2019	7.2	1,200		7,100	480	4,100

TMP 2019-09 Baseline Sampling

Lab							ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description							Alkalinity, total as CaCO3	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved
Method							SM 2320 B mg/L	SW 6010B ug/L	SW 6010B ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019									
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019									
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	61	ND (250)	ND (250)	ND (0.5)	ND (0.5)	4.2	4.4	32	31
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	130	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.8	1.8	30	30
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019	130	250	ND (50)	ND (0.5)	ND (0.5)	1.3	1.1	74	61
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019	75	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.4	1.6	94	96
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019	82	200	ND (50)	ND (0.5)	ND (0.5)	3.1	2.9	94	85
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019	55	ND (250)	ND (250)	ND (0.5)	ND (2.5)	2	2.4	70	65
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019	52			1.5	ND (0.5)	3	2.6	150	140
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019	65			ND (0.5)	ND (2.5)	2.5	1.8	220	180
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019	66			ND (0.5)	ND (0.5)	2.7	1.7	210	170
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019	67			ND (0.5)	ND (0.5)	6.3	3.6	290	240
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019	86	70	ND (50)	ND (0.5)	ND (0.5)	1	0.99	93	86
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019	150	61	ND (50)	ND (0.5)	ND (0.5)	2	1.9	85	87
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019	52	160	ND (50)	ND (0.5)	ND (0.5)	2.4	2.3	80	78
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019	48	ND (250)	ND (250)	ND (0.5)	ND (0.5)	4.1	4	99	93
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019	98	190	ND (50)	ND (0.5)	ND (0.5)	4.4	4.1	36	31
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019	110	120	ND (50)	ND (0.5)	ND (0.5)	1.3	1.3	35	33
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019	140	ND (50)	ND (50)	ND (0.5)	ND (0.5)	4.7	4.5	50	47
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019	82	470	ND (50)	ND (0.5)	ND (0.5)	1.1	0.97	84	76
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019	120	180	ND (50)	ND (0.5)	ND (0.5)	3	3	37	37
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019	98	190	ND (50)	ND (0.5)	ND (0.5)	4.1	3.7	49	44
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019	96	ND (50)	ND (50)	ND (0.5)	ND (0.5)	2.3	2.4	64	65
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019	65	ND (250)	ND (250)	ND (0.5)	ND (0.5)	2	1.8	130	120
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019	55	380	ND (250)	ND (12)	ND (0.5)	4.6	4.2	130	110
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019	1,200	300	ND (50)	ND (0.5)	ND (0.5)	11	11	92	86
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019	40	880	380	ND (0.5)	ND (0.5)	4.2	3.7	57	53
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019	33	ND (250)	ND (250)	ND (0.5)	ND (0.5)	4.3	4.2	45	44
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019	30	ND (250)	ND (250)	ND (12)	ND (0.5)	5.4	5.6	140	140
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019	32	ND (250)	ND (250)	ND (12)	ND (0.5)	5.5	5.5	140	130
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019	97	730	88	ND (0.5)	ND (0.5)	0.81	0.55	90	80
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019	56	ND (50)	ND (50)	ND (0.5)	ND (0.5)	2.1	2	130	140
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019	56	ND (50)	ND (50)	ND (0.5)	ND (0.5)	2	2	130	140
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019	48	760	ND (50)	ND (0.5)	ND (0.5)	4.7	3.9	73	71
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019	84			ND (0.5)	ND (0.5)	1.8	1.5	53	45
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019	62			ND (0.5)	ND (0.5)	1.5	1.2	240	230
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019	160			ND (0.5)	ND (0.5)	1.1	1.2	65	71
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019	170			ND (0.5)	ND (0.5)	1.2	1.2	63	66
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019	61			ND (0.5)	ND (0.5)	6.6	6.3	34	33
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019	47			ND (0.5)	ND (0.5)	6	5.5	71	64
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019	92	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.6	1.5	74	72
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019	94	ND (50)	ND (50)	ND (0.5)	ND (0.5)	3.2	3.2	110	110
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019	240	720	ND (50)	ND (0.5)	ND (0.5)	4.6	3.2	99	73
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019	180	ND (50)	ND (50)	ND (0.5)	ND (0.5)	3.2	3.2	63	64
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019	83			ND (0.5)	ND (0.5)	1.5	1.3	89	82
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019	53			ND (0.5)	ND (0.5)	1.1	0.79	300	280

TMP 2019-09 Baseline Sampling



Design & Consultancy

for natural and built assets

Lab

Description

Method Unit

ASSET Alkalinity, total as CaCO3

ASSET Aluminum

ASSET Aluminum, dissolved

ASSET Antimony

ASSET Antimony, dissolved

ASSET Arsenic

ASSET Arsenic, dissolved

ASSET Barium

ASSET Barium, dissolved

TMP 2019-09 Baseline Sampling

SM 2320 B mg/L

SW 6010B ug/L

SW 6010B ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019	47			ND (0.5)	ND (0.5)	1.9	1.9	140	140
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019	46			ND (0.5)	ND (0.5)	3.7	3.4	140	130
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019	55	67	ND (50)	ND (0.5)	ND (0.5)	1.1	1	150	150
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019	59	300	ND (50)	ND (0.5)	ND (0.5)	5.5	5.6	38	36
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019	840	ND (50)	ND (50)	ND (0.5)	ND (0.5)	5.2	5.3	120	120

TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description								Beryllium	Beryllium, dissolved	Boron	Boron, dissolved	Bromide	Cadmium	Cadmium, dissolved	Calcium
Method							Unit	SW 6020 ug/L	SW 6020 ug/L	SW 6010B ug/L	SW 6010B mg/L	EPA 300.0 mg/L	SW 6020 ug/L	SW 6020 ug/L	SW 6010B ug/L
Date Sampled															
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019									
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019									
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	ND (2.5)	ND (2.5)	2,500	2,500	ND (2.5)	ND (0.5)	ND (0.5)	360,000	360,000
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	ND (0.5)	ND (0.5)	1,000	1	ND (2.5)	ND (0.5)	ND (0.5)	130,000	140
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	1,200	1.3	ND (5.0)	ND (0.5)	ND (0.5)	150,000	160
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019	ND (2.5)	ND (2.5)	820	0.85	ND (2.5)	ND (0.5)	ND (0.5)	230,000	230
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	610	0.61	ND (2.5)	ND (0.5)	ND (0.5)	190,000	180
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019	ND (2.5)	ND (2.5)	2,700	2.8	ND (2.5)	ND (0.5)	ND (2.5)	240,000	240
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (12)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (12)			ND (5.0)	ND (0.5)	ND (2.5)		
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019	ND (2.5)	ND (12)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (12)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019	ND (0.5)	ND (0.5)	500	0.5	ND (2.5)	ND (0.5)	ND (0.5)	160,000	160
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019	ND (2.5)	ND (2.5)	1,200 J	1.2	ND (2.5)	ND (0.5)	ND (0.5)	280,000 J	290
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019	ND (12)	ND (12)	1,300 J	1.4	ND (5.0)	ND (0.5)	ND (0.5)	610,000 J	610
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019	ND (0.5)	ND (12)	2,800 J	3	ND (2.5)	ND (0.5)	ND (0.5)	130,000 J	140
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019	ND (2.5)	ND (2.5)	2,100	2.1	ND (5.0)	ND (0.5)	ND (0.5)	290,000	300
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	630	0.68	ND (2.5)	ND (0.5)	ND (0.5)	110,000	120
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019	ND (2.5)	ND (2.5)	1,600	1.6	ND (5.0)	ND (0.5)	ND (0.5)	160,000	150
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	620	0.63	ND (5.0)	ND (0.5)	ND (0.5)	210,000	210
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	810	0.77	1.5	ND (0.5)	ND (0.5)	100,000	97
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019	ND (2.5)	ND (2.5)	1,000	1	ND (5.0)	ND (0.5)	ND (0.5)	270,000	260
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	1,500	1.5	ND (5.0)	ND (0.5)	ND (0.5)	210,000	220
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	1,500	1.4	ND (5.0)	ND (0.5)	ND (0.5)	630,000	540
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	2,400	1.9	ND (2.5)	ND (0.5)	ND (0.5)	130,000	100
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	1,700	1.6	ND (5.0)	ND (0.5)	ND (0.5)	180,000 J	180 J
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	1,400	1.6	ND (5.0)	ND (0.5)	ND (0.5)	300,000	340
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	2,300	2.1	ND (5.0)	ND (2.5)	ND (0.5)	420,000	380
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	2,300	2.4	ND (5.0)	ND (2.5)	ND (0.5)	380,000	400
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019	ND (2.5)	ND (2.5)	2,600	2.4	ND (5.0)	ND (0.5)	ND (0.5)	430,000	410
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	290	0.32	ND (5.0)	ND (0.5)	ND (0.5)	150,000	160
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	1,100	1.1	ND (5.0)	ND (0.5)	ND (0.5)	280,000	280
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019	ND (2.5)	ND (2.5)	1,100	1.1	ND (5.0)	ND (0.5)	ND (0.5)	270,000	280
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	2,100	1.6	ND (5.0)	ND (0.5)	ND (0.5)	230,000	220
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (2.5)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (2.5)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019	ND (0.5)	ND (2.5)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)			ND (5.0)	ND (0.5)	ND (0.5)		
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)			ND (10)	ND (2.5)	ND (0.5)		
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019	ND (2.5)	ND (2.5)	780	0.81	ND (5.0)	ND (0.5)	ND (0.5)	290,000	290
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019	ND (2.5)	ND (2.5)	900	0.92	ND (5.0)	ND (0.5)	ND (0.5)	370,000	380
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	180	0.2	ND (1.0)	ND (0.5)	ND (0.5)	100,000	97
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	620	0.68	ND (5.0)	ND (0.5)	ND (0.5)	180,000	200
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (12)			ND (1.0)	ND (0.5)	ND (0.5)		
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)			ND (5.0)	ND (0.5)	ND (0.5)		

TMP 2019-09 Baseline Sampling


							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							Description	Beryllium	Beryllium, dissolved	Boron	Boron, dissolved	Bromide	Cadmium	Cadmium, dissolved	Calcium
							Method	SW 6020	SW 6020	SW 6010B	SW 6010B	EPA 300.0	SW 6020	SW 6020	SW 6010B
							Unit	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)				ND (10)	ND (0.5)	ND (0.5)	
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)				ND (5.0)	ND (0.5)	ND (0.5)	
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	720	0.77		ND (5.0)	ND (0.5)	ND (0.5)	370,000
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019	ND (2.5)	ND (0.5)	1,100	1.2		ND (2.5)	ND (0.5)	ND (0.5)	140,000
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019	ND (0.5)	ND (2.5)	1,700	1.7		ND (5.0)	ND (0.5)	ND (0.5)	380,000

TMP 2019-09 Baseline Sampling

Lab							ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description							Chloride	Chromium, Hexavalent	Chromium, total	Chromium, total dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Fluoride
Method							EPA 300.0 mg/L	EPA 218.6 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	EPA 300.0 mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019		ND (1.0)		ND (1.0)					
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019		ND (1.0)		ND (1.0)					
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	4,700	5,800	5,700	6,000	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.6
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	730	700	690	710	ND (0.5)	ND (0.5)	ND (1.0 J)	ND (1.0)	1.6
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019	990	1,300	350	330	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	ND (1.0)
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019	3,700	1.6	2.9	2	ND (2.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.6
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019	1,400	11	13	11	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019	11,000	ND (1.0)	ND (5.0)	ND (1.0)	ND (2.5)	ND (0.5)	ND (1.0)	ND (1.0)	7.1
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019	5,300	ND (1.0)	11	1.1	ND (0.5)	ND (0.5)	23	ND (1.0)	2.9
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019	6,400	140	230	180	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.6
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019	6,300	140	210	160	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.7
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019	6,900	ND (1.0)	19	ND (1.0)	1.1	ND (0.5)	ND (1.0)	ND (1.0)	4.3
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019	990	2.5	4.6	2.9	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0 J)	2.6
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019	2,300	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.5
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019	6,100	ND (1.0)	1.9	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.5
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019	7,400	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	1	1.1	7.7
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019	3,600	6,000	6,900	7,300	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.1
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019	470	3,200	4,400	4,300	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	1.6
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019	2,200	3,100	4,100	3,700	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.6
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019	750	2,400	3,200	3,100	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	1
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019	1,300	810	1,100	870	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.9
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019	2,800	2,000	2,700	2,600	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.2
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019	2,400	ND (1.0)	1.4	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.9
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019	6,100	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.7
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019	6,500	ND (1.0)	3.7	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	6.1
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019	2,500	ND (1.0)	2.3	ND (1.0)	1.1	0.92	ND (1.0 J)	ND (1.0)	2.3
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019	3,500	3.1	9.8	3.4	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.5
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019	5,300	480	500	480	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.5
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019	6,700	ND (2.0)	1.4	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.3
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019	6,700	ND (1.0)	1.4	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.7
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019	550	41	43	42	ND (0.5)	ND (0.5)	ND (1.0)	2.4	1.4
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019	2,700	ND (0.2)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019	2,700	ND (0.2)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019	3,900	6.4	20	7.5	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019	400	20	26	23	0.85	ND (0.5)	ND (1.0)	ND (1.0)	9
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019	1,700	0.22	3.7	ND (1.0)	0.74	ND (0.5)	ND (1.0)	ND (1.0)	2.2
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019	370	140	140	170	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	ND (1.0)
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019	370	140	150	160	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	ND (1.0)
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019	3,600	990	990	1,100	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	9.2
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019	5,700	1,900	1,900	2,100	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.8
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019	3,600	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.1
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019	4,300	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.6
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019	110	ND (0.2)	4.2	ND (1.0)	0.8	ND (0.5)	ND (1.0)	ND (1.0)	0.85
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019	1,700	ND (0.2)	1.4	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.7
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019	510	20	24	23	0.54	ND (0.5)	ND (1.0)	ND (1.0)	2.1
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019	2,200	1.4	9.3	2.6	0.52	ND (0.5)	ND (1.0)	ND (1.0)	2.3



TMP 2019-09 Baseline Sampling

 <div> <div>Design & Consultancy for natural and built assets</div> </div>							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							Description	Chloride	Chromium, Hexavalent	Chromium, total	Chromium, total dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved
<div>TMP 2019-09 Baseline Sampling</div>							Method Unit	EPA 300.0 mg/L	EPA 218.6 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	EPA 300.0 mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019	2,600	ND (0.2)	2	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.9
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019	3,500	ND (1.0)	3.4	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.3
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019	2,100	0.55	1.4	ND (1.0)	ND (0.5)	ND (0.5 J)	ND (1.0 J)	ND (1.0 J)	3.7
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019	2,100	0.52	6.8	1	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	5.2
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019	3,900	ND (1.0)	1.7	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	1.5

TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description								Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved
Method							Unit	SW 6010B ug/L	SW 6010B ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6010B ug/L	SW 6010B mg/L	SW 6020 ug/L	SW 6020 ug/L
Date Sampled															
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019									
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019									
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	ND (100)	ND (100)	ND (5.0)	ND (5.0)	17,000	17,000	ND (0.5)	ND (0.5)	ND (0.2)
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	ND (20)	ND (20)	ND (1.0)	ND (1.0)	21,000 J	22	ND (0.5)	ND (0.5)	ND (0.2)
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019	350	46	ND (1.0)	ND (1.0)	32,000	33	46	ND (0.5)	ND (0.2)
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019	86	64	ND (1.0)	ND (1.0)	43,000	45	1,300	1,300	ND (0.2)
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019	250	ND (20)	ND (1.0)	ND (1.0)	31,000	31	300	220	ND (0.2)
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019	530	370	ND (5.0)	ND (1.0)	8,700	8.9	570	560	ND (0.2)
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019			140	ND (5.0)			650	590	ND (0.2)
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (5.0)			1,600	1,500	ND (0.2)
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019			ND (5.0)	ND (5.0)			1,600	1,500	ND (0.2)
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (5.0)			530	400	ND (0.2)
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019	100	ND (20)	ND (1.0)	ND (1.0)	22,000	22	460	460	ND (0.2)
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019	630 J	540	ND (1.0)	ND (1.0)	33,000	32	460	460	ND (0.2)
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019	200 J	46	ND (1.0)	ND (1.0)	36,000	38	440	450	ND (0.2)
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019	ND (100)	ND (100)	ND (5.0)	ND (1.0)	3,500	3.9	52	50	ND (0.2)
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019	280	32	ND (1.0)	ND (1.0)	14,000	14	ND (0.5)	ND (0.5)	ND (0.2)
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019	130	ND (20)	ND (1.0)	ND (1.0)	18,000	19	ND (0.5)	ND (0.5)	ND (0.2)
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019	33	ND (20)	ND (1.0)	ND (1.0)	14,000	15	ND (0.5)	ND (0.5)	ND (0.2)
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019	670	ND (20)	ND (1.0)	ND (1.0)	39,000	38	55	32	ND (0.2)
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019	260	21	ND (1.0)	ND (1.0)	12,000	12	ND (0.5)	ND (0.5)	ND (0.2)
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019	320	ND (20)	ND (1.0)	ND (1.0)	19,000	19	ND (0.5)	ND (0.5)	ND (0.2)
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019	260	180	ND (5.0)	ND (5.0)	18,000	17	340	350	ND (0.2)
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019	400	240	ND (1.0)	ND (5.0)	93,000	78	2,700	2,600	ND (0.2)
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019	930	110	ND (1.0)	ND (5.0)	8,800	6.9	320	270	ND (0.2)
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019	2,900	2,400	ND (5.0)	ND (5.0)	220,000	220	370	340	ND (0.2)
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019	1,000	250	ND (1.0)	ND (5.0)	19,000	22	ND (0.5)	ND (0.5)	ND (0.2)
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019	150	ND (100)	ND (1.0)	ND (5.0)	25,000	22	ND (0.5)	ND (0.5)	ND (0.2)
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019	ND (100)	ND (100)	ND (1.0)	ND (5.0)	13,000	13	ND (0.5)	ND (0.5)	ND (0.2)
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019	ND (100)	ND (100)	ND (5.0)	ND (5.0)	14,000	13	ND (0.5)	ND (0.5)	ND (0.2)
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019	980	56	ND (1.0)	ND (1.0)	26,000	28	48	ND (0.5)	ND (0.2)
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019	180	230 J	ND (1.0)	ND (5.0)	28,000	29	430	430	ND (0.2)
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019	190	160 J	ND (1.0)	ND (5.0)	28,000	28	420	440	ND (0.2)
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019	1,500	90	ND (1.0)	ND (5.0)	13,000	11	150	130	ND (0.2)
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019			ND (1.0)	ND (1.0)			80	ND (0.5)	ND (0.2)
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (1.0)			540	490	ND (0.2)
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019			ND (1.0)	ND (1.0)			ND (0.5)	ND (0.5)	ND (0.2)
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019			ND (1.0)	ND (1.0)			ND (0.5)	ND (0.5)	ND (0.2)
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (5.0)			24	8.4	ND (0.2)
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (5.0)			120	77	ND (0.2)
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019	32	28	ND (1.0)	ND (1.0)	57,000	58	1,100	1,100	ND (0.2)
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019	510	500	ND (1.0)	ND (1.0)	49,000	50	3,500	3,700	ND (0.2)
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019	1,500	180	ND (1.0)	ND (1.0)	27,000	27	390	340	ND (0.2)
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019	600	640	ND (1.0)	ND (1.0)	31,000	33	590	610	ND (0.2)
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019			ND (1.0)	ND (1.0)			84	27	ND (0.2)
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (1.0)			78	54	ND (0.2)

TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							Description	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved
							Method	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6010B	SW 6010B	SW 6020	SW 6020
							Unit	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (1.0)				340	350
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019			ND (5.0)	ND (5.0)				450	430
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019	62	ND (20)	ND (1.0)	ND (1.0)	56,000	56	42 J	51	ND (0.2)
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019	380	ND (20)	ND (1.0)	ND (1.0)	7,200	7.7	ND (0.5)	ND (0.5)	ND (0.2)
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019	9,700	9,700	ND (5.0)	ND (1.0)	220,000	220	280	270	ND (0.2)


TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							Description	Mercury, dissolved	Molybdenum	Molybdenum, dissolved	Nickel	Nickel, dissolved	Nitrate/Nitrite as Nitrogen SM 4500-NO3 F mg/L	Potassium, dissolved	Selenium
							Method Unit	EPA 7470A ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6010B mg/L	SW 6020 ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019									
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019									
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	ND (0.2)	49	51	2.1	2.1	7.9	30,000	10	12
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	ND (0.2)	9.2	9.3	38	40	7.8	8.5	8.2	8.6
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019	ND (0.2)	3.4	3	ND (1.0)	ND (1.0)	13	14	8.1	7.6
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019	ND (0.2)	40	40	ND (1.0)	ND (1.0)	1.3	18	ND (2.5)	0.95
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019	ND (0.2)	11	12	ND (1.0)	ND (1.0)	1.1	10	1	0.92
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019	ND (0.2)	200	210	ND (1.0)	ND (1.0)	0.39	67	ND (2.5)	ND (0.5)
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019	ND (0.2)	38	36	9	1.4	0.9 J		0.94	0.92
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019	ND (0.2)	44	45	1.8	ND (1.0)	0.9 J		1.1	ND (2.5)
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019	ND (0.2)	43	43	ND (1.0)	ND (1.0)	0.9 J		1	0.97
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019	ND (0.2)	96	99	8.6	ND (1.0)	0.06 J		ND (0.5)	ND (2.5)
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019	ND (0.2)	25	24	2.9	ND (1.0)	0.91	10	1.1	0.87
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019	ND (0.2)	7	7.1	ND (1.0)	ND (1.0)	0.24	16	ND (0.5)	ND (0.5)
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019	ND (0.2)	34	36	ND (1.0)	ND (1.0)	1.4	39	0.59	ND (0.5)
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019	ND (0.2)	260	260	ND (1.0)	ND (1.0)	0.98	38	1	0.98
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019	ND (0.2)	21	20	1.4	ND (1.0)	9.2	31	26	26
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019	ND (0.2)	6.5	6.4	ND (1.0)	ND (1.0)	11	8.4	9.5	8.9
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019	ND (0.2)	29	27	ND (1.0)	ND (1.0)	17	17	80	74
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019	ND (0.2)	10	9.8	1.4	ND (1.0)	11	14	11	11
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019	ND (0.2)	30	32	1	ND (1.0)	15	9.2	31	30
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019	ND (0.2)	16	16	1.5	ND (1.0)	10	19	10	11
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019	ND (0.2)	13	13	ND (1.0)	ND (1.0)	0.37	14	ND (0.5)	ND (0.5)
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019	ND (0.2)	32	30	ND (1.0)	ND (1.0)	1.3	37	ND (0.5)	ND (0.5)
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019	ND (0.2)	150	140	ND (1.0)	ND (1.0)	0.18	42	ND (0.5)	ND (0.5)
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019	ND (0.2)	28	28	1.5	1.2	0.23	24	1	0.95
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019	ND (0.2)	34	32	ND (1.0)	ND (1.0)	0.62	20	0.66	0.73
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019	ND (0.2)	46	45	ND (1.0)	ND (1.0)	0.72	27	1	0.89
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019	ND (0.2)	62	62	ND (1.0)	ND (1.0)	0.25	44	ND (0.5)	ND (0.5)
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019	ND (0.2)	63	60	ND (1.0)	ND (1.0)	0.25	45	ND (0.5)	0.57
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019	ND (0.2)	3.6	3.4	1.1	ND (1.0)	4.4	10	3.2	2.9
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019	ND (0.2)	27	26	ND (1.0)	ND (1.0)	0.29	19	ND (0.5)	ND (0.5)
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019	ND (0.2)	26	26	ND (1.0)	ND (1.0)	0.25	18	ND (0.5)	ND (0.5)
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019	ND (0.2)	49	47	ND (1.0)	ND (1.0)	0.66	30	0.96	1.2
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019	ND (0.2)	17	17	2.5	ND (1.0)	8.6 J		3.9	4.6
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019	ND (0.2)	7.9	8.1	1.8	ND (1.0)	0.71 J		0.8	0.68
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019	ND (0.2)	3.3	4.1	7.8	8.8	18 J		9.4	12
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019	ND (0.2)	3.6	3.7	9.3	8.3	18 J		9.5	11
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019	ND (0.2)	97	97	1.4	ND (1.0)	12 J		6.1	6
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019	ND (0.2)	79	80	3.6	ND (1.0)	3.7 J		3.4	3.4
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019	ND (0.2)	47	45	ND (1.0)	ND (1.0)	0.51	16	ND (2.5)	ND (0.5)
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019	ND (0.2)	60	62	ND (1.0)	ND (1.0)	ND (0.05)	22	ND (2.5)	ND (0.5)
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019	ND (0.2)	10	10	2.3	ND (1.0)	ND (0.05)	4.9	ND (0.5)	ND (0.5)
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019	ND (0.2)	27	28	ND (1.0)	ND (1.0)	ND (0.05)	10	ND (0.5)	ND (0.5)
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019	ND (0.2)	11	11	1.2	ND (1.0)	7.1 J		5.9	6
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019	ND (0.2)	6.5	6	13	8.2	1.0 J		0.83	0.9



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TMP 2019-09 Baseline Sampling



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Description

Mercury, dissolved

Molybdenum

Molybdenum, dissolved

Nickel

Nickel, dissolved

Nitrate/Nitrite as Nitrogen SM 4500-NO3 F mg/L

Potassium, dissolved

Selenium

Selenium, dissolved

Method Unit

EPA 7470A ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6020 ug/L

SW 6010B mg/L

SW 6020 ug/L

SW 6020 ug/L

TMP 2019-09 Baseline Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019	ND (0.2)	27	28	ND (1.0)	ND (1.0)	0.38 J		ND (0.5)	0.87
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019	ND (0.2)	49	49	1.8	ND (1.0)	0.29 J		0.54	ND (0.5)
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019	ND (0.2)	11	10	ND (1.0)	ND (1.0)	2.4	15	2.4	2.6
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019	ND (0.2)	39	40	3.3	1.9	2.8	13 J	3.3	3.9
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019	ND (0.2)	15	15	ND (1.0)	ND (1.0)	ND (0.05)	15	ND (0.5)	ND (0.5)

TMP 2019-09 Baseline Sampling

Lab							ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description							Silver	Silver, dissolved	Sodium, dissolved	Sulfate	Thallium	Thallium, dissolved	ASSET Total dissolved solids	ASSET Total organic carbon	ASSET TPH as diesel
Method							SW 6020 ug/L	SW 6020 ug/L	SW 6010B mg/L	EPA 300.0 mg/L	SW 6020 ug/L	SW 6020 ug/L	SM 2540 C mg/L	SM 5310 C mg/L	SW 8015B ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019									
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019									
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	ND (0.5)	ND (0.5)	3,000,000	880	ND (2.5)	ND (2.5)	8,800	ND (10)	ND (52)
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	ND (0.5)	ND (0.5)	530	320	ND (0.5)	ND (0.5)	1,900	ND (1.0)	ND (51)
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019	ND (0.5)	ND (0.5)	710	370	ND (0.5)	ND (0.5)	2,200	ND (1.0)	
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	2,400	540	ND (0.5)	ND (0.5)	6,500	ND (1.0)	
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	750	240	ND (0.5)	ND (0.5)	2,700	ND (1.0)	
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	6,700	1,700	ND (2.5)	ND (0.5)	18,000 J	ND (1.0)	
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)		770	ND (2.5)	ND (2.5)	10,000	ND (1.0)	
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (2.5)		900	ND (2.5)	ND (2.5)	12,000	ND (1.0)	
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019	ND (0.5)	ND (0.5)		890	ND (2.5)	ND (2.5)	12,000	ND (1.0)	
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)		790	ND (2.5)	ND (2.5)	12,000	ND (1.0)	
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019	ND (0.5)	ND (0.5)	570	190	ND (0.5)	ND (0.5)	2,200	ND (1.0)	
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019	ND (0.5)	ND (0.5)	1,200	550	ND (0.5)	ND (0.5)	4,800	ND (1.0)	
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019	ND (0.5)	ND (0.5)	3,100	1,200	ND (0.5)	ND (0.5)	12,000	ND (1.0)	
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019	ND (2.5)	ND (0.5)	4,300	920	ND (2.5)	ND (0.5)	13,000	ND (1.0)	
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	2,300	890	ND (0.5)	ND (0.5)	6,800	ND (1.0)	
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	320	310	ND (0.5)	ND (0.5)	1,400	ND (1.0)	
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	1,700	870	ND (0.5)	ND (0.5)	4,900	ND (1.0)	
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	390	410	ND (0.5)	ND (0.5)	2,000	ND (1.0)	
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	900	510	ND (0.5)	ND (0.5)	3,000	ND (1.0)	
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019	ND (0.5)	ND (0.5)	1,400	540	ND (0.5)	ND (0.5)	5,200	ND (10 J)	
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019	ND (0.5)	ND (0.5)	1,700	610	ND (2.5)	ND (2.5)	4,900	ND (1.0)	
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (0.5)	4,200	1,100	ND (0.5)	ND (2.5)	12,000	ND (1.0)	
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	5,000	960	ND (0.5)	ND (2.5)	11,000 J	ND (1.0)	
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019	ND (0.5)	ND (0.5)	2,500	1,500	ND (2.5)	ND (2.5)	6,900	2.3	
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (0.5)	2,400	500	ND (0.5)	ND (2.5)	6,700	ND (1.0)	
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (0.5)	3,600	670	ND (0.5)	ND (2.5)	9,500	ND (1.0)	
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019	ND (2.5)	ND (2.5)	4,500	640	ND (0.5)	ND (2.5)	12,000	ND (1.0)	
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019	ND (2.5)	ND (2.5)	4,600	650	ND (2.5)	ND (2.5)	12,000	ND (1.0)	
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019	ND (0.5)	ND (0.5)	260	150	ND (0.5)	ND (0.5)	1,600	ND (1.0)	
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019	ND (0.5)	ND (0.5)	1,800	370	ND (0.5)	ND (2.5)	5,400	ND (1.0)	
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019	ND (0.5)	ND (0.5)	1,700	370	ND (0.5)	ND (2.5)	4,900	ND (1.0)	
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019	ND (0.5)	ND (0.5)	2,800	540	ND (0.5)	ND (2.5)	6,700	ND (1.0)	
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)		170	ND (0.5)	ND (0.5)	1,100	ND (1.0)	
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)		220	ND (2.5)	0.88	4,100	ND (1.0)	
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)		200	ND (0.5)	ND (0.5)	1,200	ND (1.0)	
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019	ND (0.5)	ND (0.5)		200	ND (0.5)	ND (0.5)	1,200	ND (1.0)	
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (0.5)		1,000	ND (2.5)	ND (2.5)	7,600	ND (1.0)	
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019	ND (2.5)	ND (2.5)		860	ND (2.5)	ND (2.5)	10,000	ND (1.0)	
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	2,500	1,000	ND (0.5)	ND (0.5)	7,400	ND (1.0)	
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	2,800	920	ND (0.5)	ND (0.5)	8,300	ND (1.0)	
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	77	250	ND (0.5)	ND (0.5)	810	1.1	
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	1,000	370	ND (0.5)	ND (0.5)	3,200	ND (1.0)	
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)		170	ND (0.5)	ND (0.5)	1,300	ND (10)	
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)		340	ND (2.5)	ND (0.5)	4,700	ND (1.0)	

TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							Description	Silver	Silver, dissolved	Sodium, dissolved	Sulfate	Thallium	Thallium, dissolved	ASSET Total dissolved solids	ASSET Total organic carbon
							Method Unit	SW 6020 ug/L	SW 6020 ug/L	SW 6010B mg/L	EPA 300.0 mg/L	SW 6020 ug/L	SW 6020 ug/L	SM 2540 C mg/L	SM 5310 C mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled									
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)			340	ND (2.5)	ND (0.5)	5,400	ND (1.0)
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019	ND (0.5)	ND (0.5)			450	ND (2.5)	ND (2.5)	6,500	ND (1.0)
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	1,100		470	ND (0.5)	ND (0.5)	4,800	ND (10)
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019	ND (0.5)	ND (0.5)	1,200		490	ND (0.5)	ND (0.5)	4,200	ND (1.0)
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019	ND (0.5)	ND (0.5)	2,800		1,400	ND (2.5)	ND (0.5)	9,100	1.4

TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	CTBERK
							Description	TPH as motor oil	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Ammonia as nitrogen
							Method	SW 8015B	SW 6020	SW 6020	SW 6020	SW 6020	A4500NH
							Unit	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
IRZ-19-131-136	IRZ-19-131-136	N			GW	9/9/2019							
IRZ-19-131-136	IRZ-19-142-147	N			GW	9/9/2019							
IRZ-25-SC-135-166	IRZ-25-SC-135-166	N			WATER	9/19/2019	ND (52)	2	1.9	110	130	0.6	
IRZ-25-SC-77-100	IRZ-25-SC-77-100	N			GW	9/21/2019	93	7.1	7.2	34	52	0.22	
MW-10D	MW-10D-0919	N	LF		GW	9/25/2019		9.2	7.8	ND (10)	ND (10)	0.09 J	
MW-B-117	MW-B-117-0919	N	LF		GW	9/27/2019		ND (1.0)	ND (1.0)	ND (50)	ND (10)	0.11	
MW-B-33	MW-B-33-0919	N	LF		GW	9/27/2019		3.5	1.9	ND (10)	ND (10)	0.12	
MW-B-337	MW-B-337-0919	N	LF		GW	9/27/2019		ND (1.0)	ND (1.0)	ND (50)	ND (10)	0.14	
MW-C-156	MW-C-156-0919	N	LF		GW	9/24/2019		3	ND (1.0)	ND (10)	ND (10)	0.17 J	
MW-C-181	MW-C-181-0919	N	LF		GW	9/24/2019		3.5	ND (1.0)	ND (10)	ND (10)	0.17 J	
MW-C-181	MW-913-Q319	FD		MW-C-181-0919	GW	9/24/2019		3.3	ND (1.0)	ND (10)	ND (10)	0.42	
MW-C-218	MW-C-218-0919	N	LF		GW	9/24/2019		6.9	ND (1.0)	27	ND (10)	0.48	
MW-C-39	MW-C-39-0919	N	LF		GW	9/23/2019		1.3	ND (1.0)	ND (10)	ND (10)	0.25	
MW-D-102	MW-D-102-0919	N	LF		GW	10/4/2019		ND (1.0)	ND (1.0)	ND (10)	ND (10)		
MW-D-158	MW-D-158-0919	N	LF		GW	10/4/2019		2.6	2.7	ND (10)	ND (10)		
MW-D-187	MW-D-187-0919	N	LF		GW	10/4/2019		2.4	3.3	ND (10)	ND (10)		
MW-E-142	MW-E-142-0919	N	LF		GW	9/26/2019		2.1	1.6	ND (10)	ND (10)	0.08 J	
MW-E-72	MW-E-72-0919	N	LF		GW	9/26/2019		6.3	6	ND (10)	ND (10)	0.13 J	
MW-F-104	MW-F-104-0919	N	LF		GW	9/27/2019		2.8	2.5	ND (10)	ND (10)	0.09 J	
MW-F-60	MW-F-60-0919	N	LF		GW	9/27/2019		3.3	2.1	ND (10)	ND (10)	0.07 J	
MW-G-57	MW-G-57-0919	N	LF		GW	9/27/2019		4.3	3.9	ND (10)	ND (10)	0.05 J	
MW-G-82	MW-G-82-0919	N	LF		GW	9/27/2019		1.5	ND (1.0)	ND (50)	ND (10)	0.05 J	
MW-H-112	MW-H-112-0919	N	LF		GW	9/25/2019		1.9	1.9	ND (10)	ND (10)	0.22	
MW-H-168	MW-H-168-0919	N	LF		GW	9/25/2019		ND (1.0)	ND (1.0)	ND (10)	ND (10)	0.21	
MW-H-198	MW-H-198-0919	N	LF		GW	9/25/2019		1.5	ND (1.0)	ND (10)	ND (10)	0.21	
MW-H-46	MW-H-46-0919	N	LF		GW	9/25/2019		3.3	2.7	ND (10 J)	ND (10)	5.8	
MW-L-180	MW-L-180-0919	N	LF		GW	9/25/2019		10	8	ND (10)	ND (10)	0.08 J	
MW-L-225	MW-L-225-0919	N	LF		GW	9/25/2019		6.8	6	ND (10)	ND (10)	0.09 J	
MW-L-245	MW-L-245-0919	N	LF		GW	9/25/2019		1.7	1.5	ND (10)	ND (10)	0.08 J	
MW-L-245	MW-910-Q319	FD		MW-L-245-0919	GW	9/25/2019		1.7	1.5	ND (10)	ND (10)	0.07 J	
MW-L-90	MW-L-90-0919	N	LF		GW	9/25/2019		3.5	1.9	ND (10)	ND (10)	0.08 J	
MW-M-132	MW-M-132-0919	N	LF		GW	9/25/2019		2.3	2.1	ND (10)	ND (10)	0.07 J	
MW-M-132	MW-908-Q319	FD		MW-M-132-0919	GW	9/25/2019		2.4	2.2	ND (10)	ND (10)	0.06 J	
MW-M-193	MW-M-193-0919	N	LF		GW	9/25/2019		9.1	6.6	ND (10)	ND (10)	0.06 J	
MW-M-57	MW-M-57-0919	N	LF		GW	9/24/2019		10	5.6	ND (10)	ND (10)	0.16	
MW-M-95	MW-M-95-0919	N	LF		GW	9/24/2019		6.1	1.6	ND (10)	ND (10)	0.14	
MW-N-129	MW-N-129-0919	N	LF		GW	9/24/2019		7.2	7	ND (10)	ND (10)	0.19	
MW-N-129	MW-909-Q319	FD		MW-N-129-0919	GW	9/24/2019		7.5	6.7	ND (10)	ND (10)	0.19	
MW-N-217	MW-N-217-0919	N	LF		GW	9/24/2019		7.6	5.1	ND (10)	ND (10)	0.14	
MW-N-237	MW-N-237-0919	N	LF		GW	9/24/2019		6.6	2.7	ND (10)	ND (10)	0.23	
MW-O-120	MW-O-120-0919	N	LF		GW	9/26/2019		ND (1.0)	ND (1.0)	ND (10)	ND (10)	0.1 J	
MW-O-140	MW-O-140-0919	N	LF		GW	9/26/2019		ND (1.0)	ND (1.0)	ND (10)	ND (10)	0.58 J	
MW-O-30	MW-O-30-0919	N	LF		GW	9/26/2019		2.2	ND (1.0)	ND (10)	ND (10)	1.8 J	
MW-O-66	MW-O-66-0919	N	LF		GW	9/26/2019		ND (1.0)	ND (1.0)	ND (10)	ND (10)	0.36 J	
MW-R-109	MW-R-109-0919	N	LF		GW	9/24/2019		5.4	1.7	ND (10)	ND (10)	0.29	
MW-R-139	MW-R-139-0919	N	LF		GW	9/24/2019		4.6	1.2	ND (10)	ND (10)	0.21	

TMP 2019-09 Baseline Sampling

							Lab	ASSET	ASSET	ASSET	ASSET	ASSET	CTBERK
							Description	TPH as motor oil	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Ammonia as nitrogen
							Method	SW 8015B	SW 6020	SW 6020	SW 6020	SW 6020	A4500NH
							Unit	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled							
MW-R-192	MW-R-192-0919	N	LF		GW	9/24/2019			3.8	1.7	ND (10)	ND (10)	0.2
MW-R-275	MW-R-275-0919	N	LF		GW	9/24/2019			3.5	1.3	ND (10)	ND (10)	0.2
MW-U-183	MW-U-183-0919	N	LF		GW	9/26/2019			2.8	2.5	ND (10 J)	ND (10 J)	0.15 J
MW-U-273	MW-U-273-0919	N	LF		GW	9/26/2019			15	15	ND (10)	ND (10)	0.19 J
MW-W-31	MW-W-31-0919	N	LF		GW	9/23/2019			2.9	1.3	ND (10)	ND (10)	8.6



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TMP 2019-09 Post-Development Sampling

						Lab	
						Description	
						Method	
						Unit	
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled	ASSET Chromium, Hexavalent EPA 218.6 ug/L	ASSET Chromium, total dissolved SW 6020 ug/L
MW-B-337	MW-B-337-090719	N		GW	9/7/2019	ND (1.0)	ND (1.0)
MW-C-39	MW-C-39-090519	N		GW	9/5/2019	16	14
MW-D-158	MW-D-158-092419	N		GW	9/24/2019	ND (1.0)	ND (1.0)
MW-D-187	MW-D-187-092519	N		GW	9/25/2019	ND (1.0)	ND (1.0)
MW-H-112	MW-H-112-092019	N		GW	9/20/2019	ND (1.0)	ND (1.0)
MW-H-168	MW-H-168-092119	N		GW	9/21/2019	ND (1.0)	ND (1.0)
MW-H-198	MW-H-198-092219	N		GW	9/22/2019	ND (1.0)	ND (1.0)
MW-H-46	MW-H-46-091919	N		GW	9/19/2019	1.4	19

TMP 2019-10 Baseline Sampling

							LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							CHEMICAL_NAME	Alkalinity, total as CaCO3	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved
							ANALYTIC_METHOD	SM 2320 B	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020	SW 6020	SW 6020
							RESULT_UNIT	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled										
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	77	ND (250)	ND (250)	ND (0.5)	ND (0.5)	1.5	1.3	100	96	ND (2.5)
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	46	ND (250)	ND (250)	ND (0.5)	ND (0.5)	2.7	2.6	200	200	ND (12)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	42	ND (250)	ND (250)	ND (2.5)	ND (2.5)	1.8	1.8	180	180	ND (12)
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	87	250	ND (50)	ND (0.5)	ND (0.5)	3	2.8	80	77	ND (2.5)
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	89	ND (250)	ND (250)	ND (0.5)	ND (0.5)	3	2.7	82	75	ND (2.5)
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	60	ND (250)	ND (250)	ND (2.5)	ND (2.5)	1.8	1.8	67	66	ND (12)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	52	ND (250)	ND (50)	ND (0.5)	ND (0.5)	2.1	2.3	97	100	ND (2.5)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	68	ND (250)	ND (50)	ND (0.5)	ND (0.5)	1.4	1.4	140	130	ND (12)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	46	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.4	3.1	170	160	ND (12)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	92	140	ND (50)	ND (0.5)	ND (0.5)	1.3	1.2	75	67	ND (2.5)
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	160	140	ND (50)	ND (0.5)	ND (0.5)	1.4	1.4	64	62	ND (2.5)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	50	ND (250)	ND (250)	ND (0.5)	ND (2.5)	2.9	2.5	110	68	ND (12)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	49	ND (250)	ND (250)	ND (0.5)	ND (2.5)	3.8	3.7	82	76	ND (12)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	88	60	ND (50)	ND (0.5)	ND (0.5)	2.1	2.1	52	47	ND (2.5)
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	68	73	ND (50)	ND (0.5)	ND (0.5)	1.6	1.3	80	72	ND (2.5)
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	50	ND (250)	ND (250)	ND (0.5)	ND (0.5)	3.3	3.5	74	72	ND (2.5)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	1,000	120	ND (50)	ND (0.5)	ND (0.5)	10	11	84	64	ND (2.5)
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	40	ND (50)	ND (50)	ND (0.5)	ND (0.5)	4	3.9	52	50	ND (2.5)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	54	210	ND (50)	ND (0.5)	ND (0.5)	2.8	2.5	130	130	ND (2.5)
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	49	260	76	ND (0.5)	ND (0.5)	5.1	4.5	73	67	ND (2.5)
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	88	140	ND (50)	ND (0.5)	ND (0.5)	1.6	1.5	46	44	ND (0.5)
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	89	130	ND (50)	ND (0.5)	ND (0.5)	1.5	1.6	46	43	ND (0.5)
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	61	220	ND (50)	ND (0.5)	ND (0.5)	1.2	1	220	220	ND (2.5)
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	61	110	ND (50)	ND (0.5)	ND (0.5)	6	6.1	31	31	ND (2.5)
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	100	97	ND (50)	ND (0.5)	ND (0.5)	2.3	2.1	81	70	ND (2.5)
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	67	68	ND (250)	ND (0.5)	ND (0.5)	2	2	110	110	ND (2.5)
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	260	460	ND (50)	ND (0.5)	ND (0.5)	2.9	2.5	76	67	ND (0.5)
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	170	440	ND (50)	ND (0.5)	ND (0.5)	3.9	3.6	140	120	ND (2.5)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	82	170	ND (50)	ND (0.5)	ND (0.5)	1.2	1.2	93	86	ND (0.5)
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	51	ND (250)	ND (250)	ND (0.5)	ND (0.5)	1	0.79	290	290	ND (2.5)
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	52	ND (250)	ND (250)	ND (0.5)	ND (0.5)	1	0.75	280	280	ND (2.5)
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	48	ND (50)	ND (50)	ND (0.5)	ND (0.5)	1.8	1.7	120	110	ND (2.5)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	46	ND (50)	ND (50)	ND (0.5)	ND (0.5)	3.3	3.4	100	100	ND (2.5)

= Preliminary result

TMP 2019-10 Baseline Sampling

							LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							CHEMICAL_NAME	Beryllium, dissolved	Boron	Boron, dissolved	Bromide	Cadmium	Cadmium, dissolved	Calcium	Calcium, dissolved	Chloride
							ANALYTIC_METHOD	SW 6020	SW 6010B	SW 6010B	EPA 300.0	SW 6020	SW 6020	SW 6010B	SW 6010B	EPA 300.0
							RESULT_UNIT	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled										
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	ND (2.5)	950	1.1	ND (2.5)	ND (0.5)	ND (0.5)	240,000	280	3,900	1.4
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	ND (2.5)	1,100	1.2	ND (2.5)	ND (0.5)	ND (0.5)	390,000	480	5,300	ND (1.0)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	ND (2.5)	2,200	2.2	ND (2.5)	ND (2.5)	ND (2.5)	320,000	330	7,300	ND (1.0)
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	ND (2.5)	690	0.67	ND (2.5)	ND (0.5)	ND (0.5)	180,000	200	1,300	12
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	ND (0.5)	670	0.57	ND (2.5)	ND (0.5)	ND (0.5)	170,000	160	1,300	12
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	ND (12)	2,800	2.9	ND (2.5)	ND (2.5)	ND (2.5)	230,000	260	9,900	ND (1.0)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	ND (2.5)	1,400	1.2	ND (5.0)	ND (0.5)	ND (0.5)	410,000	400	5,200	ND (1.0)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	ND (2.5)	1,700	1.1	ND (5.0)	ND (0.5)	ND (0.5)	590,000	670	6,300	270
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	ND (2.5)	2,900	0.87	ND (5.0)	ND (0.5)	ND (2.5)	260,000	240	7,000	ND (1.0)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	ND (0.5)	590	0.52	ND (2.5)	ND (0.5)	ND (0.5)	120,000	130	850	30
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	ND (2.5)	1,200	1.2	ND (2.5)	ND (0.5)	ND (0.5)	260,000	290	2,200	ND (0.2)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	ND (2.5)	1,800	1.4	ND (5.0)	ND (0.5)	ND (2.5)	510,000	460	6,100	1.4
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	ND (12)	3,200	3.1	ND (2.5)	ND (0.5)	ND (2.5)	130,000	130	7,100	ND (1.0)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	ND (2.5)	1,500	1.8	ND (5.0)	ND (0.5)	ND (0.5)	240,000	250	2,400	ND (1.0)
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	ND (2.5)	1,100	1.3	ND (5.0)	ND (0.5)	ND (0.5)	610,000	670	5,900	ND (1.0)
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	ND (2.5)	2,000	0.63	ND (2.5)	ND (0.5)	ND (0.5)	110,000	93	6,700	ND (1.0)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	ND (0.5)	1,300	1.2	ND (2.5)	ND (0.5)	ND (0.5)	170,000	160	1,800	ND (1.0)
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	ND (2.5)	1,400	1.6	ND (5.0)	ND (0.5)	ND (0.5)	300,000	300	3,500	5.9
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	ND (2.5)	1,100	1.2	ND (5.0)	ND (0.5)	ND (0.5)	300,000	310	2,700	ND (0.2)
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	ND (2.5)	1,700	2	ND (5.0)	ND (0.5)	ND (0.5)	240,000	240	3,900	7.3
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	ND (0.5)	430	0.46	ND (2.5)	ND (0.5)	ND (0.5)	85,000	82	360	22
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	ND (0.5)	440	0.49	ND (2.5)	ND (0.5)	ND (0.5)	83,000	86	380	23
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	ND (0.5)	500	0.53	ND (5.0)	ND (0.5)	ND (0.5)	340,000	310	1,700	0.23
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	ND (2.5)	2,000	2	ND (2.5)	ND (0.5)	ND (0.5)	240,000	230	3,600	1,000
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	ND (12)	890	1.2	ND (5.0)	ND (0.5)	ND (0.5)	310,000	270	3,500	ND (1.0)
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	ND (2.5)	1,100	1.2	ND (5.0)	ND (0.5)	ND (0.5)	660,000	480	5,400	ND (1.0)
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	ND (0.5)	210	0.21	ND (1.0)	ND (0.5)	ND (0.5)	93,000	91	140	ND (0.2)
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	ND (2.5)	910	0.93	ND (5.0)	ND (0.5)	ND (0.5)	280,000	250	2,000	ND (0.2)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	ND (0.5)	370	0.32	ND (1.0)	ND (0.5)	ND (0.5)	110,000	110	520	21
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	ND (2.5)	900	0.73	ND (5.0)	ND (0.5)	ND (0.5)	490,000	520	2,100	5
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	ND (2.5)	1,100	0.8	ND (5.0)	ND (0.5)	ND (0.5)	540,000	530	2,100	5.2
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	ND (2.5)	1,200	1.3	ND (10)	ND (0.5)	ND (0.5)	270,000	270	2,800	ND (0.2)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	ND (2.5)	1,500	1.7	ND (5.0)	ND (0.5)	ND (0.5)	300,000	290	3,400	ND (1.0)

= Preliminary result

TMP 2019-10 Baseline Sampling

							LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							CHEMICAL_NAME	Chromium, total	Chromium, total dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Fluoride	Iron	Iron, dissolved
							ANALYTIC_METHOD RESULT_UNIT	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	SW 6020 ug/L	EPA 300.0 mg/L	SW 6010B ug/L	SW 6010B ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled										
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019		16	1.7	ND (0.5)	ND (0.5)	16	ND (1.0)	3.3	370	ND (100)
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019		ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.5	160	160
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019		8.6	ND (1.0)	ND (0.5)	ND (0.5)	10	ND (1.0)	4.5	440	260
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019		15	12	ND (0.5)	ND (0.5)	29	6	3.2	350	120
MW-B-33	MW-923-Q419	FD			GW	10/21/2019		16	12	ND (0.5)	ND (0.5)	29	5.2	3	160	ND (100)
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019		1.5	ND (1.0)	ND (0.5)	ND (0.5)	120	8.1	6.6	450	350
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019		ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (5.0)	ND (1.0)	3.3	ND (100)	26
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019		250	270	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.1	ND (100)	ND (20)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019		5.4	ND (1.0)	ND (0.5)	ND (0.5)	2.8	ND (5.0)	4.8	240	ND (100)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019		38	32	ND (0.5)	ND (0.5)	1.6	ND (1.0)	3.5	230	85
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019		3.5	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3	230	61
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019		9.6	1.5	ND (0.5)	ND (0.5)	9.6	5.2	3.3	280	ND (100)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019		2	ND (1.0)	ND (0.5)	ND (0.5)	4.2	2.9	7.7	ND (100)	ND (100)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019		40	3.7	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3	290	53
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019		47	6.5	0.78	ND (0.5)	ND (1.0)	ND (1.0)	2.7	450	120
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019		23	1.8	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	6.2	240	ND (100)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019		7.5	ND (1.0)	1	0.76	ND (1.0)	ND (1.0)	1.9	2,700	2,300
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019		6.4	5.2	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.7	23	ND (20)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019		5	ND (1.0)	ND (0.5)	ND (0.5)	9.1	ND (1.0)	3.6	590	170
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019		23	9.9	ND (0.5)	ND (0.5)	10	1.5	4.6	630	130
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019		25	23	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	1.9	260	25
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019		25	23	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	1.9	190	ND (20)
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019		3.3	ND (1.0)	ND (0.5)	ND (0.5)	4.7	ND (1.0)	3.2	440	54
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019		1,000	1,000	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.9	210	54
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019		3.8	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3	220	30
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019		6	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.2	500	370
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019		5.1	ND (1.0)	0.51	ND (0.5)	ND (1.0)	ND (1.0)	0.81	1,400	800
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019		1.8	ND (1.0)	0.54	ND (0.5)	ND (1.0)	ND (1.0)	2.3	1,400	880
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019		27	22	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	2.3	380	32
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019		12	5.7	0.66	ND (0.5)	ND (1.0)	ND (1.0)	2.7	570	ND (100)
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019		11	5.2	0.56	ND (0.5)	ND (1.0)	ND (1.0)	2.4	520	ND (100)
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019		ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	3.9	130	24
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019		ND (1.0)	ND (1.0)	ND (0.5)	ND (0.5)	ND (1.0)	ND (1.0)	4.6	87	23

= Preliminary result

TMP 2019-10 Baseline Sampling

							LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							CHEMICAL_NAME	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Molybdenum	Molybdenum, dissolved
							ANALYTIC_METHOD RESULT_UNIT	SW 6020 ug/L	SW 6010B ug/L	SW 6010B mg/L	SW 6020 ug/L	SW 6020 ug/L	EPA 7470A ug/L	EPA 7470A ug/L	SW 6020 ug/L	SW 6020 ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled										
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	ND (1.0)	60,000	65	1,100	1,100	ND (0.2)	ND (0.2)	39	40	7.6
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	ND (5.0)	51,000	61	2,800	2,700	0.23	ND (0.2)	87	84	ND (1.0)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	ND (5.0)	17,000	17	1,100	1,200	ND (0.2)	ND (0.2)	160	160	5.4
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	ND (1.0)	33,000	32	350	300	ND (0.2)	ND (0.2)	14	14	1.4
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	ND (1.0)	31,000	29	350	290	ND (0.2)	ND (0.2)	14	13	1.7
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	ND (5.0)	8,800	8.9	560	550	ND (0.2)	ND (0.2)	220	240	ND (1.0)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	ND (5.0)	39,000	32	380	380	ND (0.2)	ND (0.2)	34	37	ND (5.0)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	ND (5.0)	91,000	65	1,400	1,300	ND (0.2)	ND (0.2)	41	42	ND (1.0)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	ND (5.0)	12,000	58	370	360	ND (0.2)	ND (0.2)	96	93	4.1
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	ND (1.0)	21,000	21	140	140	ND (0.2)	ND (0.2)	29	29	1.7
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	ND (1.0)	33,000	34	190	180	ND (0.2)	ND (0.2)	5.9	5.6	1.7
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	ND (5.0)	47,000	43	290	260	ND (0.2)	ND (0.2)	40	38	3.6
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	ND (5.0)	3,700	3.8	170	160	ND (0.2)	ND (0.2)	280	270	ND (1.0)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	ND (1.0)	17,000	18	120	120	ND (0.2)	ND (0.2)	12	11	19
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	ND (5.0)	68,000	68	990	960	ND (0.2)	ND (0.2)	22	21	24
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	ND (5.0)	3,800	3.3	86	76	ND (0.2)	ND (0.2)	160	160	12
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	ND (1.0)	200,000	200	230	210	ND (0.2)	ND (0.2)	15	16	3.8
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	ND (1.0)	18,000	19	ND (0.5)	ND (0.5)	ND (0.2)	ND (0.2)	35	33	ND (1.0)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	ND (1.0)	28,000	30	350	330	ND (0.2)	ND (0.2)	26	26	2.5
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	ND (1.0)	9,500	9.7	97	130	ND (0.2)	ND (0.2)	49	49	1.8
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	ND (1.0)	14,000	14	6.6	ND (0.5)	ND (0.2)	ND (0.2)	18	18	1.6
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	ND (1.0)	14,000	14	5.5	ND (0.5)	ND (0.2)	ND (0.2)	18	18	1.4
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	ND (1.0)	53,000	52	280	260	ND (0.2)	ND (0.2)	7.3	7.4	1.5
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	ND (1.0)	8,900	8.6	6.3	ND (0.5)	ND (0.2)	ND (0.2)	96	100	5.2
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	ND (1.0)	63,000	75	1,100	1,100	ND (0.2)	ND (0.2)	50	45	1.1
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	ND (5.0)	64,000	92	2,300	2,400	ND (0.2)	ND (0.2)	47	49	2.6
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	ND (1.0)	28,000	35	410	380	ND (0.2)	ND (0.2)	11	11	2.6
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	ND (1.0)	47,000	58	1,800	1,700	ND (0.2)	ND (0.2)	21	21	ND (1.0)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	ND (1.0)	14,000	14	54	9.6	ND (0.2)	ND (0.2)	10	10	1.6
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	ND (1.0)	81,000	87	29	ND (0.5)	ND (0.2)	ND (0.2)	5.7	5.2	18
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	ND (1.0)	90,000	90	24	ND (0.5)	ND (0.2)	ND (0.2)	5.6	5.1	16
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	ND (1.0)	22,000	23	220	210	ND (0.2)	ND (0.2)	32	30	ND (1.0)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	ND (1.0)	19,000	19	200	170	ND (0.2)	ND (0.2)	44	44	ND (1.0)

= Preliminary result

TMP 2019-10 Baseline Sampling

							LAB_NAME_CODE	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
							CHEMICAL_NAME	Nickel, dissolved	Nitrate/Nitrite as Nitrogen SM 4500-NO3 F	Potassium, dissolved	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium, dissolved	Sulfate	Thallium
							ANALYTIC_METHOD	SW 6020	SW 6020	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020	SW 6010B	EPA 300.0	SW 6020
							RESULT_UNIT	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled											
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019	ND (1.0)	1.6	18	ND (2.5)	1.5	ND (2.5)	ND (0.5)	2,100	620	ND (2.5)	ND (0.5)
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019	ND (1.0)	0.95	29	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	3,400	1,100	ND (2.5)	ND (2.5)
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019	ND (1.0)	0.26	62	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	4,400	1,100	ND (2.5)	ND (2.5)
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019	ND (1.0)	1.4	9.8	1.3	1.4	ND (0.5)	ND (0.5)	720	250	ND (0.5)	ND (0.5)
MW-B-33	MW-923-Q419	FD			GW	10/21/2019	ND (1.0)	1.4	9.3	1.7	1.2	ND (0.5)	ND (0.5)	700	250	ND (0.5)	ND (0.5)
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019	ND (1.0)	0.35	69	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	6,100	1,700	ND (2.5)	ND (2.5)
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019	ND (1.0)	1.5	26	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	2,700	790	ND (2.5)	ND (2.5)
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019	ND (1.0)	1.2	29	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	3,100	920	ND (2.5)	ND (2.5)
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019	ND (5.0)	0.34	48	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	4,700	880	ND (2.5)	ND (2.5)
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019	ND (1.0)	2.1	10	2.2	2.3	ND (0.5)	ND (0.5)	500	190	ND (0.5)	ND (0.5)
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019	ND (1.0)	0.35	16	ND (0.5)	ND (2.5)	ND (0.5)	ND (0.5)	1,300	550	ND (0.5)	ND (0.5)
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019	ND (1.0)	1.4	36	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	3,200	1,200	ND (2.5)	ND (2.5)
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019	ND (1.0)	1.1	46	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)	6,200	920	ND (2.5)	ND (2.5)
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019	3.8	0.6	16	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,500	620	ND (0.5)	ND (0.5)
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019	3.7	1.5	35	0.63	ND (0.5)	ND (0.5)	ND (0.5)	3,300	1,100	ND (2.5)	ND (2.5)
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019	ND (1.0)	0.69	16	ND (0.5)	ND (0.5)	ND (2.5)	ND (0.5)	5,100	1,000	ND (2.5)	ND (2.5)
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019	ND (1.0)	0.092	20	0.99	1.3	ND (0.5)	ND (0.5)	1,700	1,400	ND (0.5)	ND (0.5)
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019	ND (1.0)	0.58	18	0.82	ND (0.5)	ND (0.5)	ND (0.5)	2,200	480	ND (0.5)	ND (0.5)
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019	ND (1.0)	0.34	16	0.67	ND (0.5)	ND (0.5)	ND (0.5)	1,300	350	ND (0.5)	ND (0.5)
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019	1	0.76	28	0.74	1	ND (0.5)	ND (0.5)	2,400	520	ND (0.5)	ND (0.5)
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019	1.1	9.8	6.9	4.2	4.8	ND (0.5)	ND (0.5)	230	180	ND (0.5)	ND (0.5)
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019	ND (1.0)	9.3	6.9	4.6	4.4	ND (0.5)	ND (0.5)	230	180	ND (0.5)	ND (0.5)
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019	ND (1.0)	0.78	11	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	660	230	1	0.88
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019	ND (1.0)	7.8	25	5.3	6.6	ND (0.5)	ND (0.5)	2,500	980	ND (0.5)	ND (0.5)
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019	ND (1.0)	0.15	21	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,900	960	ND (0.5)	ND (0.5)
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019	ND (1.0)	0.55	19	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	4,100	950	ND (0.5)	ND (2.5)
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019	ND (1.0)	0.064	33	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	140	230	ND (0.5)	ND (0.5)
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019	ND (1.0)	ND (0.05)	13	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1,200	450	ND (0.5)	ND (0.5)
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019	ND (1.0)	9	7.7	6	6.1	ND (0.5)	ND (0.5)	260	170	ND (0.5)	ND (0.5)
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019	10	1	14	0.75	0.77	ND (0.5)	ND (0.5)	750	320	ND (0.5)	ND (0.5)
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019	11	1	14	0.94	0.88	ND (0.5)	ND (0.5)	740	340	ND (0.5)	ND (0.5)
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019	ND (1.0)	0.37	15	0.75	0.93	ND (0.5)	ND (0.5)	1,400	360	ND (0.5)	ND (0.5)
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019	ND (1.0)	0.57	18	0.81	0.8	ND (0.5)	ND (0.5)	1,800	440	ND (0.5)	ND (0.5)

= Preliminary result

TMP 2019-10 Baseline Sampling

							LAB_NAME_CODE	ASSET Total dissolved solids	ASSET Total organic carbon	ASSET Vanadium	ASSET Vanadium, dissolved	ASSET Zinc	ASSET Zinc, dissolved	CTBERK Ammonia as nitrogen
							CHEMICAL_NAME							
							ANALYTIC_METHOD	SM 2540 C	SM 5310 C	SW 6020	SW 6020	SW 6020	SW 6020	A4500NH
							RESULT_UNIT	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location ID	Sample ID	Sample Type	Sample Method	Parent Sample	Matrix	Date Sampled								
MW-B-117	MW-B-117-1019	N	LF		GW	10/21/2019		7,400	ND (1.0)	2.4	ND (1.0)	ND (10)	ND (10)	
MW-B-202	MW-B-202-1019	N	LF		GW	10/22/2019		11,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (10)	0.09
MW-B-267R	MW-B-267R-1019	N	LF		GW	10/21/2019		14,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (10)	
MW-B-33	MW-B-33-1019	N	LF		GW	10/21/2019		2,700	ND (1.0)	2.8	2.2	ND (10)	ND (10)	
MW-B-33	MW-923-Q419	FD			GW	10/21/2019		2,700	ND (1.0)	2.8	2.2	ND (10)	ND (10)	
MW-B-337	MW-B-337-1019	N	LF		GW	10/21/2019		18,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (10)	
MW-C-156	MW-C-156-1019	N	LF		GW	10/22/2019		9,500	ND (1.0)	1.6	1.6	ND (50)	ND (10)	0.17
MW-C-181	MW-C-181-1019	N	LF		GW	10/22/2019		13,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (10)	0.37
MW-C-218	MW-C-218-1019	N	LF		GW	10/22/2019		13,000	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (50)	0.23
MW-C-39	MW-C-39-1019	N	LF		GW	10/22/2019		1,900	ND (1.0)	3.3	2.3	ND (10)	ND (10)	0.15
MW-D-102	MW-D-102-1019	N	LF		GW	10/22/2019		4,600	ND (10)	3	2.5	ND (10)	ND (10)	0.12
MW-D-158	MW-D-158-1019	N	LF		GW	10/22/2019		12,000	ND (1.0)	4.3	2.8	ND (10)	ND (10)	0.09
MW-D-187	MW-D-187-1019	N	LF		GW	10/22/2019		13,000	ND (1.0)	3.1	2.9	ND (10)	ND (10)	0.09
MW-H-112	MW-H-112-1019	N	LF		GW	10/24/2019		4,900	ND (1.0)	5.5	4.7	ND (10)	18	
MW-H-168	MW-H-168-1019	N	LF		GW	10/24/2019		11,000	ND (1.0)	2	1.3	ND (10)	ND (10)	
MW-H-198	MW-H-198-1019	N	LF		GW	10/24/2019		12,000	ND (1.0)	1.1	ND (1.0)	ND (10)	ND (10)	
MW-H-46	MW-H-46-1019	N	LF		GW	10/24/2019		5,800	2	2.7	1.9	ND (10)	ND (10)	
MW-L-180	MW-L-180-1019	N	LF		GW	10/25/2019		6,400	ND (1.0)	9.2	8.6	ND (10)	ND (10)	
MW-M-132	MW-M-132-1019	N	LF		GW	10/23/2019		4,900	ND (1.0)	4.9	2.9	ND (10)	ND (10)	
MW-M-193	MW-M-193-1019	N	LF		GW	10/23/2019		7,000	ND (1.0)	10	6.9	ND (10)	ND (10)	
MW-M-57	MW-M-57-1019	N	LF		GW	10/23/2019		1,100	ND (1.0)	7.4	6.8	ND (10)	ND (10)	
MW-M-57	MW-924-Q419	FD		MW-M-57-1019	GW	10/23/2019		1,100	ND (1.0)	7.4	6.8	ND (10)	ND (10)	
MW-M-95	MW-M-95-1019	N	LF		GW	10/23/2019		3,400	ND (1.0)	4.3	2.5	ND (10)	ND (10)	
MW-N-217	MW-N-217-1019	N	LF		GW	10/25/2019		7,200	ND (1.0)	6.2	5.9	ND (10)	ND (10)	
MW-O-120	MW-O-120-1019	N	LF		GW	10/24/2019		7,400	ND (1.0)	1.4	ND (1.0)	ND (10)	ND (10)	
MW-O-140	MW-O-140-1019	N	LF		GW	10/24/2019		9,600	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (10)	
MW-O-30	MW-O-30-1019	N	LF		GW	10/24/2019		800	1.2	1.4	ND (1.0)	ND (10)	ND (10)	
MW-O-66	MW-O-66-1019	N	LF		GW	10/24/2019		4,200	ND (1.0)	1.6	ND (1.0)	ND (10)	ND (10)	
MW-R-109	MW-R-109-1019	N	LF		GW	10/23/2019		1,200	ND (1.0)	5.2	3.1	ND (10)	ND (10)	
MW-R-139	MW-R-139-1019	N	LF		GW	10/23/2019		4,300	ND (1.0)	4.9	3	ND (10)	ND (10)	
MW-R-139	MW-925-Q419	FD		MW-R-139-1019	GW	10/23/2019		4,300	ND (1.0)	4.5	2.9	ND (10)	ND (10)	
MW-R-192	MW-R-192-1019	N	LF		GW	10/23/2019		5,100	ND (1.0)	3.8	3.4	ND (10)	ND (10)	
MW-R-275	MW-R-275-1019	N	LF		GW	10/23/2019		5,900	ND (1.0)	3.2	3.1	ND (10)	ND (10)	

= Preliminary result

TMP 2019-10 Post Development Sampling

LAB_NAME_CODE						ASSET Arsenic, dissolved SW 6020 ug/L	ASSET Chromium, Hexavalent EPA 218.6 ug/L	ASSET Chromium, total dissolved SW 6020 ug/L
CHEMICAL_NAME						ANALYTIC_METHOD		
RESULT_UNIT								
Location ID	Sample ID	Sample Type	Sample Method	Matrix	Date Sampled			
MW-B-202	MW-B-202-101819	N		GW	10/18/2019	2.3	ND (1.0)	ND (1.0)
MW-B-267R	MW-B-267R-101619	N		GW	10/16/2019		ND (1.0)	ND (1.0)
MW-D-46R	MW-D-46R-103119	N		GW	10/31/2019		ND (0.2)	ND (1.0)
MW-Y-102	MW-Y-102-102319	N		GW	10/23/2019		ND (0.2)	ND (1.0)
MW-Y-122	MW-Y-122-103119	N		GW	10/31/2019		ND (1.0)	ND (1.0)
MW-Y-37	MW-Y-37-102019	N		GW	10/20/2019		ND (0.2)	ND (1.0)
MW-Y-72	MW-Y-72-102219	N		GW	10/22/2019		ND (0.2)	ND (1.0)
RB-4-138	RB-4-138-102019	N		GW	10/20/2019		ND (0.2)	ND (1.0)
RB-4-58	RB-4-58-102119	N		GW	10/21/2019		ND (0.2)	ND (1.0)
RB-5-44	RB-5-44-102419	N		GW	10/24/2019		ND (0.2)	ND (1.0)
RB-5-89	RB-5-89-102319	N		GW	10/23/2019		ND (0.2)	ND (1.0)

= Preliminary result