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February 10, 2020

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Subject: **January 2020 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup, PG&E Topock Compressor Station, Needles, California**
(Document ID: TPK_Monthly_Progress_Rpt_January_2020_20200210_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 January 2020 as well as activities planned for the next six weeks (February 2 through March 14, 2020), and presents available results from sampling and testing performed in January 2020.

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 sixteenth 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: <i>January 2020 Monthly Progress Report for the Groundwater Remedy Construction and Startup, PG&E Topock Compressor Station, Needles, California</i>	Date of Document: 02/10/2020 Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other) PG&E
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Priority Status: <input type="checkbox"/> HIGH <input type="checkbox"/> MED <input checked="" type="checkbox"/> LOW	Is this time critical? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type of Document: <input type="checkbox"/> Draft <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Memo <input type="checkbox"/> Other / Explain:	Action Required: <input checked="" type="checkbox"/> Information Only <input type="checkbox"/> Review and Input <input type="checkbox"/> Other / Explain:
What does this information pertain to? <input type="checkbox"/> Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA) <input type="checkbox"/> RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment) <input type="checkbox"/> Corrective Measures Study (CMS)/Feasibility Study (FS) <input checked="" type="checkbox"/> Corrective Measures Implementation (CMI)/Remedial Action (RA) <input type="checkbox"/> California Environmental Quality Act (CEQA)/Environmental Impact Report (EIR) <input type="checkbox"/> Interim Measures <input type="checkbox"/> Other / Explain:	Is this a Regulatory Requirement? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 (CAC) and the 2013 Remedial Design/Remedial Action Consent Decree (CD), as well as the Construction/Remedial Action Work Plan (C/Rawp).	Other Justification/s: <input type="checkbox"/> Permit <input type="checkbox"/> Other / Explain:
Brief Summary of attached document: This monthly report describes activities taken during January 2020 and activities planned for the next six weeks (February 2 through March 14, 2020) and presents available results from sampling and testing in January 2020. In addition, this report discusses material deviations from the approved design documents and/or the <i>Construction/ Remedial Action Work Plan</i> (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.	



January 2020
Monthly Progress Report for the
Final Groundwater Remedy Construction and Startup

PG&E Topock Compressor Station
Needles, California

Document ID: TPK_Monthly_Progress_Rpt_January_20200210_Final

February 2020

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/m³	micrograms per cubic meter
AOC	Area of Concern
ARAR	applicable or relevant and appropriate requirement
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
CRWQCB	California Regional Water Quality Control Board, Colorado River Basin Region
DOI	United States Department of the Interior
DTSC	California Department of Toxic Substances Control
ERTC	Environmental Release to Construct
FCR	field contact representative
IM-3	Interim Measure No. 3
IRZ	in-situ reactive zone
LOC	level of concern
NTH	National Trails Highway
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act
SEIR	Subsequent Environmental Impact Report
SMP	Soil Management Plan
SPY	Soil Processing Yard
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
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 monthly electronic progress reports during construction of the remedial action, and to submit progress reports 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 sixteenth 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 January 2020, and follows the content and format described in Exhibit 2.6-2 of the approved C/RawP. The report is organized as follows:

- Sections 2.1 through 2.7 describe 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.
- Sections 2.8 through 2.10 summarize key project personnel changes, if any, 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 2.11 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 2.12 presents validated 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 (DTSC, 2018a).
- 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, Colorado River Basin Region (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 January 31, 2020, a total of 81 six-week look-ahead schedule emails have been sent. Of those, four six-week look-ahead schedule emails were sent in January 2020 (on January 5, 12, 19, and 26).
- On August 10, 2018, PG&E issued the first Environmental Release to Construct (ERTC) to contractors. As of January 31, 2020, a total of 58 ERTCs were issued for mobilization and construction activities. One new ERTC was issued in the month of January for the installation of monitoring well MW-Z. The ERTCs are listed in Tables 2-1a and 2-1b.
- 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 January 2020, a total of 28 daily construction activities lists were published and discussed at the morning tailboards.
- In January 2020, PG&E completed the following construction activities (note that Figures 2-1 and 2-2 show the locations of key areas and wells, and Table 2-2 presents the changes in well nomenclature):
 - Completed soil resistivity survey for cathodic protection in the jack and bore receiving area south of NTH.
 - Completed re-building of the westernmost portion of the Pipeline B corridor that was damaged by rain storms.
 - Performed pilot boring/well installation activities (by Rotosonic drilling):
 - a) Completed installation of pilot borehole at IRZ-31, IRZ-33, and IRZ-35.
 - b) Completed surface completion at MW-B, MW-C, MW-D, MW-H, MW-S, MW-11D, MW-X, MW-Y', and Hydro-6 monitoring well.
 - Performed remedy well installation (by dual rotary drilling) and well testing activities:
 - a) Completed remedy well installation at IRZ-15, IRZ-27, and IRZ-37.
 - b) Completed well development at RB-2 and IRZ-17.
 - c) Completed well testing at IRZ-16, IRZ-17, and RB-4.
 - Attachment A includes select photos of activities during this reporting period.
 - Attachment B presents 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:

- a) Pursuant to the Baseline Soil Sampling and Analysis Plan (Appendix A of the Soil Management Plan [SMP] [which is Appendix L of the C/RAWP]), the following soil samples were collected in January 2020:
 - o On January 7, 2020, one soil sample was collected at the bottom of the remedy pipeline C8 trench.
 - o On January 17, 2020, one soil sample was collected at the MW-V monitoring well location.
- b) On January 22, 2020, an opportunistic sample was collected of the stained soil (black) encountered in Pipeline M.
- c) Attachment C includes a figure showing soil sampling locations and an excel spreadsheet presenting soil analytical results that are available to date.
- Perimeter Air Sampling Activities:
 - a) Dust monitoring/observation was conducted through January 31, 2020 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. No perimeter air sampling event occurred in January 2020.
 - c) Attachment D presents a summary of the perimeter air sampling methodology and a table showing air analytical results available to date.
- Noise monitoring activities:
 - a) Noise monitoring is conducted at pre-approved locations closest to the construction activities. Through January 31, 2020, noise monitoring was conducted at the following pre-approved locations:
 - o Location west of the mobile home park at Moabi Regional Park
 - o Maze A Area 2
 - o Maze B Combined Area 1/2
 - o Maze C Area 1
 - o Mobile home park at Topock Marina
 - b) Attachment E presents a summary of the noise monitoring methodology and a summary of noise monitoring data collected during January 2020.

2.2 Work Already Underway and During Implementation

As of January 31, 2020, PG&E has started and will continue to perform the following activities:

- Continue with well development and testing at RB-3 (after backfilling bottom of screen).
- Continue to install Pipelines B and J.
- Continue installation of Pipeline C, Segments C8, C8-Alt and C14.
- Continue work to install remedy facilities on the MW-20 Bench.
- Continue to install Pipeline M, Segments M2 through M6 and Pipeline X inside TCS.
- Continue to collect baseline and opportunistic soil samples.
- 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 SMP (Appendix L of the C/RAWP).

2.3 Freshwater Usage, Waste Generation and Management

As of January 31, 2020, 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

- As of January 31, 2020, an approximate total of 4,663,072 (14.31 acre-feet) of freshwater have been used, of which approximately 21.9 percent was for pilot boring/well installation and general construction, 1.3 percent was for hydrostatic testing of pipeline, and 76.8 percent was for fugitive dust suppression. Of this amount, approximately 287,922 gallons of freshwater was used in January 2020.
- As of January 31, 2020, an approximate total of 45,820 gallons of hydrostatic testing water has been 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. All discharges to land comply with the substantive requirements of State Water Resources Control Board (SWRCB) Water Quality Order 2003-0003-DWQ. Attachment F presents the approximate volume at each approved discharge location and date of each discharge. No hydrostatic testing activities occurred in July, August, September, or November 2019. Although hydrostatic testing activities were conducted in December 2019 and January 2020, no discharge to land occurred as the testing water was captured and used for dust control.
- As of December 31, 2019, approximately 55,029 gallons of injectivity testing water has been 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. Injectivity tests were conducted in January 2020 at IRZ-17. Injectivity data including volume of water injected will be reported in the next monthly report.
- As of January 31, 2020, IM-3 has treated an approximate total of 87,540 gallons of remedy wastewater (generated from drilling operations), of which 9,540 gallons were treated in January 2020. The discharge complies with the IM-3 ARARs. No remedy wastewater was sent to IM-3 in September and December 2019.
- As of January 31, 2020, an approximate total of 788,982 gallons of wastewater generated from drilling operations were discharged to Compressor Station evaporation pond #4. In January 2020, 161,066 gallons of wastewater was discharged to pond #4. The discharge complies with the Waste Discharge Requirements (WDRs) of the CRWQCB 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 are characterized and managed in accordance with the approved Waste Management Plan (Appendix R of the C/RAWP).

- Wastewater from drilling operations contains 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 designated frac tanks at the Construction Headquarters (CHQ).

2.3.2 Displaced Materials/Soils/Clay

- Approximately 539 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. Displaced 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 SMP.

- In December 2019, a soil bin containing approximately 10 cubic yards of displaced soil from the installation of well RB-3 and MW-B was characterized in accordance with the SMP. Analytical results indicated that the soil contain cadmium at concentrations slightly above the interim screening level. A decision on the final disposition of the bin is forthcoming.
- 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 the US Ecology landfill in Beatty, Nevada. No offsite shipment occurred in November and December 2019.
- **Pipeline Installation Outside of the MW-20 Bench and TCS Fenceline:**
 - 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 SMP. This soil is currently stockpiled on a plastic liner at the SPY. A decision on the final disposition of this soil is forthcoming.
 - In March 2019, approximately 40 cubic yards of displaced soil was generated from potholing activities at the MW-20 Bench and along a 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 SMP. These soils are currently stored in bins at the SPY. A decision on the final disposition of these soils is forthcoming.
 - With one exception, displaced material from trenching along the Pipeline B/J alignment (rocks, soils) was 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 of 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 were sampled on November 21, 2019 in accordance with the SMP. The soil piles are currently placed on visqueen and covered with plastic. Based on analytical results, these soils exceeded the interim soil management screening levels for zinc, TEQ-mammals, and TEQ-avian, and therefore, will be disposed offsite.
 - Displaced sands from construction of Pipeline C Segments C3 through 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 were consumed, and therefore imported sands from the CEMEX quarry in Bullhead, AZ have been used.
 - Displaced material from trenching along Segment C14 has been used to fill in existing eroded channels on the hillside south of the alignment. Excess material is stored at the SPY and is available for reuse.
 - Displaced material from trenching along Segment C8, C8-Alt, and C14 are processed at the SPY, to remove rocks/boulders and plastic. After processing, the material will be available for reuse. In January 2020, soil processing activities yielded 858 cubic yards of materials that are deemed suitable for reuse in remedy pipe trenches and 288 cubic yards of rocks/boulders and plastics. Reusable materials are being reused, and the rocks/boulders are stored in the SPY for future reuse. Plastics are disposed offsite as general construction waste.
- **Pipeline Installation Inside TCS Fenceline:** In January 2020, excess soil was generated from the preparation for and the installation of Pipeline M Segments M2 through M6 and Pipeline X at TCS. In January 2020, with the exception of three bins, an approximate total of 536 cubic yards of excess soil has been transported to and stockpiled at the SPY. The soils in bins are being tested and analytical results are forthcoming.

In addition, concrete and asphalt debris were also generated from removal of the south retaining wall and trenching through the asphalt road for pipeline installation. The debris is stockpiled inside TCS and will be disposed of in February.

- **MW-20 Bench:** Excavation activities for the installation of remedy facilities at the MW-20 Bench were completed in December 2019. An approximate 1,680 cubic yards of excavated soil was generated from remedy construction activities at the MW-20 Bench. The excavated soil was classified using recent potholing data (collected specifically for soil management purposes). As a result, 1,370 cubic yards of soil was classified as suitable for onsite reuse. A decision on the disposition of the remaining 320 cubic yards of soil is forthcoming. Due to space constraints at the MW-20 Bench, all excess soil has been transported to and stored at the SPY. Some of the clean soil will be transported back to the MW-20 Bench for use in construction.

2.3.3 General Construction Waste, Sanitary Waste, and Recyclables

- Approximately 1,148 cubic yards of general construction waste, 41.2 tons of construction debris (primarily concrete waste), 504 tons of green waste, and 276 cubic yards of recyclables were generated from remedy construction activities. Of those, approximately 54 cubic yards of trash and 4.3 tons of construction debris were generated in January 2020. They were transported to Mojave Valley landfill in Fort Mohave, Arizona for disposal and management.
- A total of nine tires were recovered during construction along Pipeline B/J. On January 14, 2020, these tires were transported to Mojave Valley landfill in Fort Mohave, Arizona for disposal.
- Sanitary waste from construction trailers/portable toilets is hauled offsite as needed.
- Starting in September 2019, recycling at the site was ceased due to the high costs of local recycling.

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 January 31, 2020, a total of 131 health and safety training sessions were held and 419 employees and contractors received the training. Of those, in January 2020, seven sessions were conducted and 23 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 January 31, 2020, a total of 134 WEAT sessions were conducted and 478 employees and contractors received the training. Of those, in January 2020, seven sessions were conducted and 22 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.
- 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 January 31, 2020, a total of 13 FCR training sessions were conducted. Of those, in January 2020, 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 January 2020. Table 2-3 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 22, 2019, DTSC and DOI directed PG&E to install the provisional MW-V monitoring well due to the concentration of hexavalent chromium found at MW-10D. As a result, PG&E and contractors started to plan for the well installation and the requirement to build an access road to the well location. The access road will need to cross Bat Cave Wash and cut through an earthen dam which was built in the 1950s by PG&E to protect a natural Gas Pipeline that has since been abandoned in place. PG&E has determined that additional areas beyond the current construction footprint are needed to build the access road for the drill rig and support equipment to reach the drilling location, as well as for equipment/material staging and construction vehicle parking. A site walk with Tribes, DTSC, and the Refuge Manager was conducted on January 6, 2020 to view and discuss the additional areas.

Subsequent to the site walk, PG&E Gas Operations conducted an investigation to locate the abandoned gas pipeline along its right of way at the earthen dam. The gas pipeline was not located within the earthen dam, but PG&E Gas Operations has determined that the pipeline is not an obstacle to the building of the access road. Excess material generated from the investigation has been placed in PG&E's right of way along Pipeline 300A on Refuge land. Based on the results of this investigation, PG&E reduced the extent of the additional areas.

On January 24, 2020, PG&E submitted a request to BLM, USFWS, and CDFW for approval of the reduced additional areas.

- On January 9, 2020, it was observed that water dripped from a construction water truck overnight (the truck was used to provide water for dust suppression). The volume of water dripped onto the ground is estimated at roughly 25 gallons or less. The remaining water in the tank was sprayed in the area for dust suppression and this stopped the drip. A detailed report was submitted to DTSC, DOI, BOR, and BLM on January 10, 2020. To prevent a reoccurrence, all water will be used for dust depression prior to end of day or parking for long periods of time.
- On January 9, 2020, a crew working on trenching operations at Pipeline B TCS was using a hydraulic hammer attachment on a backhoe to break solid rock in their trench. The spotter for the operation saw three drips of hydraulic oil fall from the hammer into the broken rock in the excavation and immediately stopped work and informed the foreman. The foreman asked the operator to ground the hammer on visqueen for inspection. The foreman found that one of the fittings where the hydraulic hose enters the hammer had come loose causing the fitting to seep hydraulic oil when operated. The foreman had the crew construct a containment and had the operator place the hammer inside the containment and detach it from the backhoe until the hammer could be repaired. The amount of impacted rock was two 1" rocks, three 2"-4" rocks and one 6" rock. Cleanup of impacted rock was performed under TCS direction. All impacted rocks were provided to TCS for disposal.

A detailed report was submitted to DTSC and DOI on January 13, 2020. To prevent a reoccurrence, a discussion took place with the crew about the importance of situational awareness and how being attentive allowed them to catch this leak before it caused a more significant release.

- On January 9, 2020, it was observed that remedy wastewater leaked from a valve while water was being pumped to IM-3. Approximately ¼ of a gallon of wastewater came into contact with the soil. Wet soil was scooped up and placed in active drilling roll off bin. A detailed report was submitted to DTSC, DOI, BOR, and BLM. Containment and absorbent pads were placed under the leaky valve, main valve to tank closed, and the line was pumped off. The valve was relocated so that it is within the containment pad, and the valve tightened.
- During development of well RB-3, sand production was observed in the development water. Development was stopped, and the cause of sand production was investigated by down-hole camera survey. Several feet of sand was observed in the bottom of the well, and the lower screen was determined to be damaged below 192 feet (bottom 24 feet of screen). Options for a path forward at

this well were discussed with the agencies on December 19, 2019. The following path forward will be implemented:

- Backfill bottom portion of screen with pea stone
- Add plug above pea stone
- Finish developing and testing well
- Evaluate testing data to determine if well will meet its design function
- If well will not meet design function abandon well in place, offset, and re-drill replacement well

2.8 Key Personnel Changes

There was no change to key PG&E project personnel in January 2020.

2.9 Communication with the Public

In compliance with 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 (February 2 through March 14, 2020) include the following:

- Start installation of MW-Z, IRZ-27, IRZ-29, and IRZ-31.
- Start MW-V site preparation and well installation.
- Complete installation of pilot borings at IRZ-31, -33, -35, and -37.
- Conduct well testing at RB-2, RB-3, IRZ-15, and IRZ-27.
- Continue to install remedy facilities at the MW-20 Bench.
- Complete installation of Pipeline B.
- Continue installation of Pipeline J.
- Continue installation of Pipeline M Segments M2-M6 and Pipeline X inside TCS.
- Continue installation of Pipeline C in the floodplain and along the southern access road to the floodplain.
- Start Pipeline F installation.
- 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 SMP.

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 2-4 presents a summary of the percent completeness for key construction activities as of January 31, 2020.

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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United States Department of the Interior (DOI). 2018. *Approval of PG&E Topock Compressor Station Remediation Site – Basis of Design Report/Final (100%) Design Submittal and Construction/Remedial Action Work Plan for the Final Groundwater Remedy and the Supplemental and Errata Information for the Final (100%) Design for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California*. Letter from Pamela Innis/DOI to Curt Russell/PG&E. April 3.

Tables

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

*January 2020 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 Topock Compressor Station (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, refer to Table 2-3). A forthcoming addendum to this ERTC will be issued to include the actual upgrade activities.	January 10, 2019

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
12a	Scope included the actual brine tanks containment upgrade activities which include intrusive work on the MW-20 Bench (per Work Variance Request #1, refer to Table 2-3).	February 6, 2019
13	Scope included the installation of remedy facilities on MW-20 Bench.	November 21, 2019
14	Scope included site preparation for the installation of Pipeline M inside TCS.	December 11, 2019
15	Scope included the installation of Pipeline M2-M6 and X Installation Inside TCS	December 13, 2019
16	Scope included soil resistivity survey and the installation of pipeline C9 (Jack and Bore) and pipeline C8b.	December 29, 2019

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

*January 2020 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

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
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
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
5af	Scope included the site setup, drilling, testing, and demobilization at MW-Z	January 22, 2020
5ag	Scope included the site setup, drilling, testing, and demobilization at IRZ-18 on MW-20 Bench	November 15, 2019

Table 2-2. Monitoring Wells Nomenclature Changes

*January 2020 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup
PG&E Topock Compressor Station, Needles, California*

Previous Well Name	New Monitoring Well Name
MW-10D	MW-10D
MW-11D	MW-11D
MW-70BR-D	MW-70BR-289
MW-B-033	MW-75-033
MW-B-117	MW-75-117
MW-B-202	MW-75-202
MW-B-267R	MW-75-267
MW-B-337	MW-75-337
MW-C-039	MW-76-039
MW-C-156	MW-76-156
MW-C-181	MW-76-181
MW-C-218	MW-76-218
MW-D-046R	MW-77-046
MW-D-102	MW-77-102
MW-D-158	MW-77-158
MW-D-187	MW-77-187
MW-E-072	MW-78-072
MW-E-142	MW-78-142
MW-F-060	MW-79-060
MW-F-104	MW-79-104
MW-G-057	MW-80-057
MW-G-082	MW-80-082
Former IRZ-19	MW-81-43
Former IRZ-19	MW-81-98
MW-H-046	MW-82-046
MW-H-112	MW-82-112
MW-H-168	MW-82-168
MW-H-198	MW-82-198
MW-L-090	MW-83-090
MW-L-180	MW-83-180
MW-L-225	MW-83-225
MW-L-245	MW-83-245
MW-M-057	MW-84-057
MW-M-095	MW-84-095

Previous Well Name	New Monitoring Well Name
MW-M-132	MW-84-132
MW-M-193	MW-84-193
MW-N-129	MW-85-129
MW-N-217	MW-85-217
MW-N-237	MW-85-237
MW-O-030	MW-86-030
MW-O-066	MW-86-066
MW-O-120	MW-86-120
MW-O-140	MW-86-140
MW-R-109	MW-87-109
MW-R-139	MW-87-139
MW-R-192	MW-87-192
MW-R-275	MW-87-275
MW-S-109	MW-88-109
MW-U-183	MW-89-183
MW-U-273	MW-89-273
MW-W-031	MW-90-031
MW-X-045	MW-91-045
MW-X-120	MW-91-120
MW-X-170	MW-91-170
MW-X-320	MW-91-320
MW-Y-037	MW-92-037
MW-Y-072	MW-92-072
MW-Y-102	MW-92-102
MW-Y-122	MW-92-122
HYDRO-6 (deep)	MW-94-30
HYDRO-6 (mid)	MW-94-100
HYDRO-6 (shallow)	MW-94-175

Table 2-3. Summary of Work Variance Requests (WVRs)

*January 2020 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 (refer to 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. 	DOI approved WVR #1 on June 22, 2018 DTSC approved WVR #1 on July 5, 2018
2	<p>PG&E proposed to relocate the tie-in point for remedy construction water to an aboveground location inside Topock Compressor Station (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. 	DOI/DTSC approved WVR #2 on August 29, 2018
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. 	DOI/DTSC approved WVR #3 on January 4, 2019

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 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 distance (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:

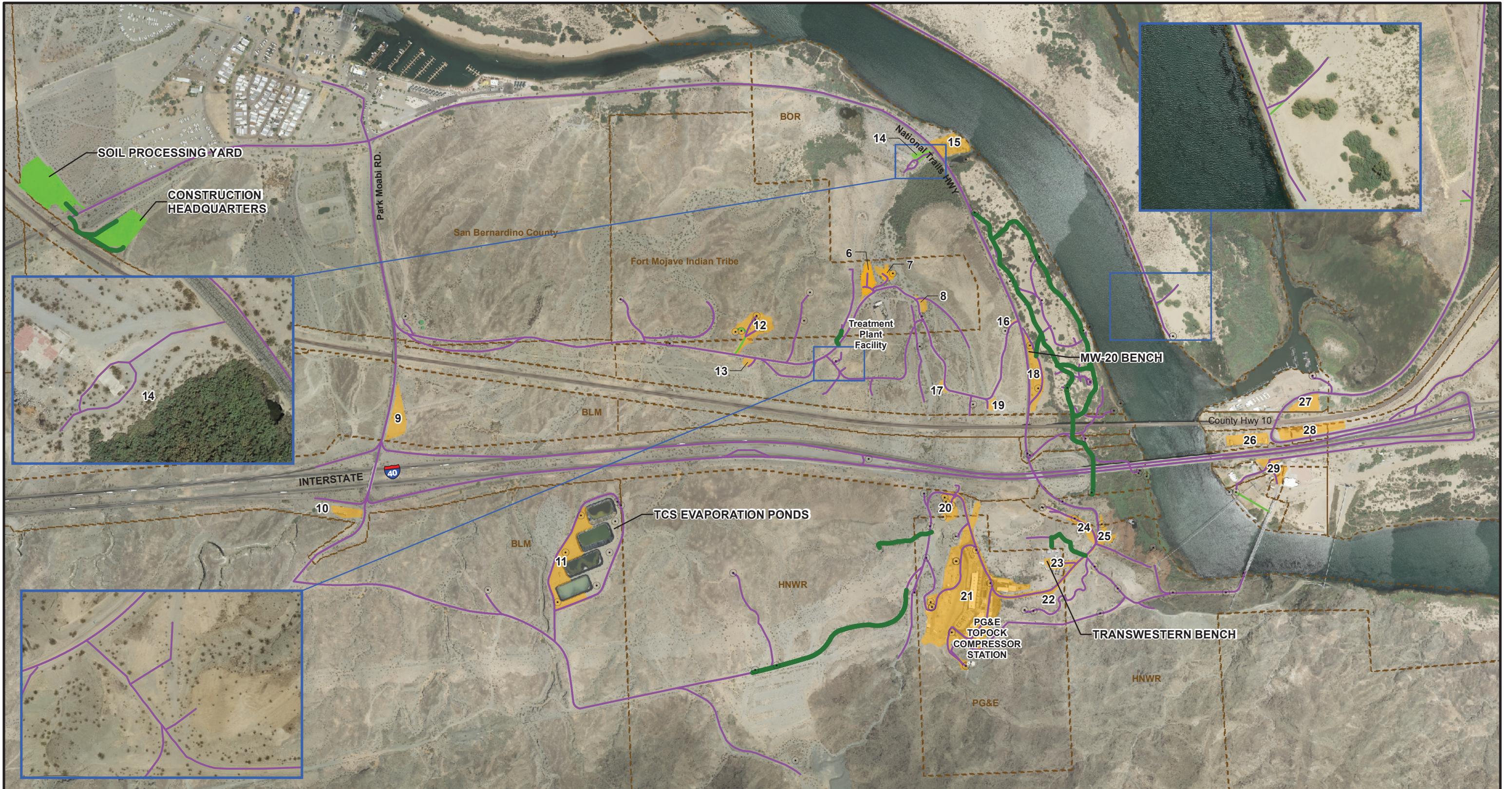
* CH2M HILL, Inc. (CH2M). 2015a. *Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California*. November 18.

Table 2-4. Summary of Percent Completeness of Key Construction Activities

*January 2020 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 January 31, 2020)
Project signage & Public Information Office	100%	Complete.
Staging Areas 9, 18, and 23 set-up	100%	Complete.
Temporary construction offices at Soil Processing Yard	100%	Complete.
Soil Processing Yard including security fence	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 and security fence	100%	Complete.
Brine Tanks containment upgrade	100%	Complete.
Aggregate-based access road in floodplain	Not Available	Portion north of BNSF bridge is substantially complete.
MW-L, N, E, W, O, R, M, U, 10D, 11D, B, C, D, H, S, Hydro-6, X, and Y'	100%	Complete.
MW-F, MW-G, MW-70BR, MW-81, IRZ-37, IRZ-39, RB-2, RB-3	Not Available	Well construction complete. Surface completion will be scheduled when rig is available.
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.
RB-5, RB-4, RB-3, RB-2, IRZ-9, 13, 15, 16, 17, 18, 21, 23, 25, 27, 29, 31, 35, 37, and 39 pilot borings	100%	Complete.
RB-2, RB-3, RB-4, IRZ-16, IRZ-17, IRZ-20, IRZ-21, IRZ-23, IRZ-25, and IRZ-39 remedy wells	Not Available	Well construction complete. Well testing ongoing.
Evaluation of RB-3 performance (sand production observed during development)	Not Available	Video log complete. Options for path forward were discussed with agencies on 12/19/19. A path forward was selected and is being implemented. Bottom portion of screen backfilled with pea gravel. Continue with development and testing.
Pipeline C Segments C3, C4, C5, C7	Not Available	Substantially complete.
Pipeline C Segments C8, C8-Alt, and C14	Not Available	Currently underway.
Pipeline B and J	Not Available	Started on August 12, 2019. Currently underway.
Pipeline M2-M6 (inside TCS0	Not Available	Started on December 18, 2019. Currently underway.
Pipeline X (inside TCS)	Not Available	Started on December 18, 2019. Currently underway.
Remedy pipeline/infrastructure on MW-20 Bench	Not Available	Started on December 16, 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:**
1. Decontamination pads will be located in Area #4 (Construction Headquarters), Area #21 (Topock Compressor Station), and Area #23 (Transwestern Bench).
 2. 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.
 3. 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.
 4. Public roadways outside of the EIR project area and the APE can also be used for remedy implementation.

0 900
Feet

FIGURE 2-1
CONSTRUCTION SITE PLAN
AND ACCESS ROUTES
GROUNDWATER REMEDY CONSTRUCTION/
PHASE 1
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



Attachment A Photographs



Photo showing pipe support installation at Pipeline C8-Alt



Photo showing installed pipes and conduits in C8-Alt



Photo showing pumping of pipe flushing water at Pipeline B/J into water truck (background)



Photo showing excavation at Pipeline M2 Station 59+97



Photo showing hand excavation at 90-degree corner at Pipeline M3 Station 61+90



Photo showing hand excavation at Pipeline B inside TCS



Photo showing a worker setting form at MW-20 Bench



Photo showing the access road in the floodplain with posted speed limit.



Photos showing drilling of IRZ-33 and IRZ-31 pilot boreholes along NTH



Photo showing surface completion at MW-D



Photo showing pumping test at RB-2



Photo showing unloading of excavated material at SPY



Another photo showing delivery of excess soil to SPY

Attachment B
Available Boring and 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

*January 2020 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-11D	MW-11D-110219	11/02/19	Sample collected from well development	26	17
MW-94 (formerly Hydro-6)	MW-94-175-120419	12/04/19	Sample collected from well development	5.2	5.7
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

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-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
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-B	MW-B-267R-101619	10/16/19	Sample collected from well development	Estimated concentration of 0.147 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-B	MW-B-202-101819	10/18/19	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-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

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	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
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 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

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-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
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-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-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-46R-103119	10/31/19	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-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

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-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
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

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-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
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

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-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
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

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-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
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

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-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
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

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-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
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

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-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-X	MW-X-120-112019	11/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-X	MW-X-170-112319	11/23/19	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-X	MW-X-320-112219	11/22/19	Sample collected from well development	Estimated concentration of 0.912 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
MW-X	MW-X-45-111819	11/18/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-122-103119	10/31/19	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-Y'	MW-Y-102-102319	10/23/19	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-Y'	MW-Y-72-102219	10/22/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-Y'	MW-Y-37-102019	10/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 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
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-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-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

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-81 (former IRZ-19)	MW-81-98-121919	12/19/19	Sample collected from well development	Estimated concentration of 0.145 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-81 (former IRZ-19)	MW-81-43-010820	01/08/20	Sample collected from well development	Estimated concentration of 0.202 micrograms per liter	Not detected below reporting limit of 0.033 microgram per liter
MW-94 (former HYDRO-6)	MW-94-175-120419	12/4/19	Sample collected from well development	5.2	5.7
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

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-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
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 micrograms per liter
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-18	IRZ-18-VAS-42-47	11/19/19	Vertical aquifer sample collected at 42 - 47 feet	520	580
IRZ-18	IRZ-18-VAS-62-67	11/19/19	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-18	IRZ-18-VAS-67-72	11/19/19	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 0.033 microgram per liter
IRZ-18	IRZ-18-VAS-102-107	11/20/19	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-18	IRZ-18-VAS-112-117	11/20/19	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 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-137-142	11/21/19	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 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-147-152	11/21/19	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
IRZ-18	IRZ-18-VAS-152-157	11/22/19	Vertical aquifer sample collected at 152 - 157 feet	Estimated concentration of 0.267 micrograms per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-157-162	11/22/19	Vertical aquifer sample collected at 157 - 162 feet	1100	870
IRZ-18	IRZ-18-VAS-162-167	11/22/19	Vertical aquifer sample collected at 162 - 167 feet	3400	3300
IRZ-18	IRZ-18-VAS-167-172	11/23/19	Vertical aquifer sample collected at 167 - 172 feet	4800	4700
IRZ-18	IRZ-18-VAS-172-177	12/03/19	Vertical aquifer sample collected at 172 - 177 feet	740	660
IRZ-18	IRZ-18-VAS-177-182	12/03/19	Vertical aquifer sample collected at 177 - 182 feet	360	390

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-18	IRZ-18-VAS-182-187	12/04/19	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
IRZ-18	IRZ-18-VAS-187-192	12/04/19	Vertical aquifer sample collected at 187 – 192 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.17 microgram per liter
IRZ-18	IRZ-18-VAS-202-207	12/05/19	Vertical aquifer sample collected at 202 – 207 feet	Estimated concentration of 0.204 micrograms 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
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

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-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
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

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-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-29	IRZ-29-VAS-47-52	12/16/19	Vertical aquifer sample collected at 47 – 52 feet	4400	4500
IRZ-29	IRZ-29-VAS-62-67	12/17/19	Vertical aquifer sample collected at 62 – 67 feet	2500	2400
IRZ-29	IRZ-29-VAS-87-92	12/17/19	Vertical aquifer sample collected at 87 – 92 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
IRZ-29	IRZ-29-VAS-112-117	12/18/19	Vertical aquifer sample collected at 112 – 117 feet	730	760
IRZ-29	IRZ-29-VAS-116-120.5	12/19/19	Vertical aquifer sample collected at 116 - 120 feet	18	23
IRZ-31	IRZ-31-VAS-48-53	01/08/20	Vertical aquifer sample collected at 48-53 feet	2000	2000
IRZ-31	IRZ-31-VAS-72-77	01/09/20	Vertical aquifer sample collected at 72-77 feet	570	480
IRZ-31	IRZ-31-VAS-102-107	01/10/20	Vertical aquifer sample collected at 102-107 feet	2300	2300
IRZ-31	IRZ-31-VAS-115-120	01/11/20	Vertical aquifer sample collected at 115-120 feet	2500	2500
IRZ-33	IRZ-33-VAS-49-54	01/21/20	Vertical aquifer sample collected at 49-54 feet	Validated data not yet available	2100
IRZ-33	IRZ-33-VAS-72-77	01/22/20	Vertical aquifer sample collected at 72-77 feet	Validated data not yet available	1600
IRZ-33	IRZ-33-VAS-105-110	01/23/20	Vertical aquifer sample collected at 105-110 feet	Validated data not yet available	1300
IRZ-35	IRZ-35-VAS-52-57	01/13/20	Vertical aquifer sample collected at 52-57 feet	850	810
IRZ-35	IRZ-35-VAS-67-72	01/13/20	Vertical aquifer sample collected at 67-72 feet	990	920

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-35	IRZ-35-VAS-82-87	01/14/20	Vertical aquifer sample collected at 82-87 feet	2300	2500
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
IRZ-39	IRZ-39-110419	11/04/19	Sample collected from well development	38	36
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
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

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-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
RB-4	RB-4-138-102019	10/20/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Estimated concentration of 0.135 microgram per liter
RB-4	RB-4-58-102119	10/21/19	Sample collected from well development	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-5	RB-5-VAS-12-17	04/04/19	Vertical aquifer sample collected at 12 - 17 feet	Estimated concentration of 0.235 microgram per liter	Estimated concentration of 0.125 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-5	RB-5-VAS-42-47	04/09/19	Vertical aquifer sample collected at 42 - 47 feet	Not detected below reporting limit of 0.13 microgram per liter	Not detected below reporting limit of 0.033 microgram per liter
RB-5	RB-5-VAS-82-87	04/09/19	Vertical aquifer sample collected at 82 - 87 feet	Estimated concentration of 0.769 microgram per liter	Estimated concentration of 0.127 microgram per liter
RB-5	RB-5-44-102419	10/24/19	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
RB-5	RB-5-89-102319	10/23/19	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

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



LEGEND

- Soil Sample Location
- Soil Sample Collected from this Location in January 2020

0 300 600
Feet

Baseline and Opportunistic Soil Sampling Locations

Monthly Progress Report
Groundwater Remedy Phase 1 Construction
PG&E Topock Compressor Station, Needles, California

JACOBS

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 (LOCs) 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 January 2020, 161 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 $\mu\text{g}/\text{m}^3$).

No perimeter air sampling was conducted in January 2020. Table D-1 presents analytical results from air sampling events that are available at this time. All results are below the LOC for hexavalent chromium which is 0.00094 $\mu\text{g}/\text{m}^3$.

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California Department of Toxic Substances Control (DTSC). 2011. [LeadSpread8](#).

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Marlowe, C. 1999. *Safety Now! Controlling Chemical Exposures at Hazardous Waste Sites with Real-Time Measurements*. Fairfax, Va.: American Industrial Hygiene Association Press.

U.S. Environmental Protection Agency (USEPA). 2009. *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)*. Final. OSWER 9285.7-82. January.

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Table D-1. Perimeter Air Sampling Results

January 2020 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
AOC30-D1	AOC30 Downwind 1	12/16/2019	0.0000871 - concentration estimated by laboratory or data validation
AOC30-D2	AOC30 Downwind 2	12/16/2019	Not detected at a reporting limit of 0.0000271 micrograms per cubic meter
AOC30-U1	AOC30 Upwind 1	12/16/2019	0.0000782 - concentration estimated by laboratory or data validation
AOC08-D1	AOC08 Downwind 1	12/17/2019	0.000106 - concentration estimated by laboratory or data validation
AOC08-D2	AOC08 Downwind 2	12/17/2019	0.000151 – concentration reported by laboratory
AOC08-U1	AOC08 Upwind 1	12/17/2019	0.000063 - concentration estimated by laboratory or data validation
AOC30-D1	AOC30 Downwind 1	12/17/2019	0.0000584 - concentration estimated by laboratory or data validation
AOC30-D2	AOC30 Downwind 2	12/17/2019	0.0000537 - concentration estimated by laboratory or data validation
AOC30-U1	AOC30 Upwind 1	12/17/2019	0.0000644 - concentration estimated by laboratory or data validation
AOC30-D1	AOC30 Downwind 1	12/18/2019	0.0000601 - concentration estimated by laboratory or data validation
AOC30-D2	AOC30 Downwind 2	12/18/2019	0.0000806 - concentration estimated by laboratory or data validation
AOC30-U1	AOC30 Upwind 1	12/18/2019	Not detected at a reporting limit of 0.000031 micrograms per cubic meter
AOC08-D1	AOC08 Downwind 1	12/18/2019	0.000233 – concentration reported by laboratory
AOC08-D2	AOC08 Downwind 2	12/18/2019	0.000123 - concentration estimated by laboratory or data validation
AOC08-U1	AOC08 Upwind 1	12/18/2019	Not detected at a reporting limit of 0.000027 micrograms per cubic meter
AOC30-D1	AOC30 Downwind 1	12/19/2019	0.0000648 - concentration estimated by laboratory or data validation
AOC30-D2	AOC30 Downwind 2	12/19/2019	0.0000584 - concentration estimated by laboratory or data validation
AOC30-U1	AOC30 Upwind 1	12/19/2019	0.0000749 - concentration estimated by laboratory or data validation
AOC08-D1	AOC08 Downwind 1	12/19/2019	0.0000806 - concentration estimated by laboratory or data validation
AOC08-D2	AOC08 Downwind 2	12/19/2019	0.0000837 - concentration estimated by laboratory or data validation
AOC08-U1	AOC08 Upwind 1	12/19/2019	Not detected at a reporting limit of 0.00003 micrograms per cubic meter
AOC10-D1	AOC10 Downwind 1	11/04/2019	0.0000696 - concentration estimated by laboratory or data validation

Location ID	Location	Sampling Date	Hexavalent Chromium Concentration in micrograms per cubic meter
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
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

Location ID	Location	Sampling Date	Hexavalent Chromium Concentration in 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 Supplemental Environmental Impact Report (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. 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 equivalent continuous sound level (L_{eq}) 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 the interval data are 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 expressed in terms of the 24-hour average day-night sound level (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 January 2020, the following monitoring events were conducted:

- Nineteen 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 40 and 54 dBA, with an average and median of 46 dBA.
- Twenty-two 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 the MW-20 Bench, repair of portion of the IM-3 access road damaged from recent storm events, and construction traffic on the access road. The sound level varied between 47 and 55 dBA, with an average and median of 51 dBA. Sound levels spiked when repair of nearby IM-3 access road was conducted.
- Twenty-three 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 54 dBA, with an average and median of 49 dBA.
- Three 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 55 and 55 dBA, with an average and median of 52 dBA. Sound levels spiked when there are boat traffic, train traffic, wildlife activities, and wind gust around the mobile homes.

- Seventeen events at a location on a bluff below TCS, just south of I-40 and east of the Topock Maze. Construction activities closest to this monitoring location are associated with work at Pipeline B/J and Pipeline M inside TCS, as well as MW-S. The sound level typically varied between 52 and 59 dBA, with an average and median of 56 dBA.
- On November 16, 2019, PG&E conducted a short-term pre-mobilization sound test 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. Based on the test results, PG&E anticipated that a sound barrier would be required to comply with NOISE-2 unless MW-Z is moved. The driller, Cascade, proposed a NOISE-2 compliant sound panel system that can withstand the maximum wind speed registered at a nearby weather station during the last wind storm at the site on October 9-10, 2019. However, Cascade also raised several safety concerns about the use of such sound panel system at this location. PG&E discussed with the agencies and on December 2, 2019, submitted a request for a waiver of a sound barrier at the MW-Z location due to safety concerns.

Since the December 2, 2019 request, DTSC met with PG&E and the Tribes to explore other options for a safe and effective noise barrier as an alternative to the proposed sound panel system. The most viable option, from a safety standpoint, was the use of stacked shipping containers. While the use of stacked shipping containers was acceptable by Cascade for safety, that was not a preference expressed by the Fort Mojave Indian Tribe (FMIT) during the site walk with PG&E, DTSC, and Tribal representatives on January 6, 2020. Tribal representatives concurred with the FMIT that the preference is to waive the use of sound barrier over the aesthetic impacts and potential additional footprint of using containers as sound barriers.

On January 14, 2020, DTSC granted PG&E with a waiver for the sound barrier at the MW-Z location and stated the following:

"Since the application of NOISE-2 mitigation measure at this location was specifically for the protection of the Tribal resource near that area, DTSC will give deference to the Tribes' preference and waive the necessity of a noise barrier for the drilling of MW-Z. This waiver, however, is limited only to the drilling, installation and development of well MW-Z and should not be construed as a waiver of any other mitigation measure requirements applicable for this activity and at this site. The necessity of using noise barriers should continue to be evaluated on a case-by-case basis."

"As a result of agreeing to a waiver to the use of noise barrier for the drilling, installation and development of MW-Z, DTSC also agrees to suspending noise monitoring at this location during well installation except for one noise sample to be taken during the maximum noise output of the drill rig to document the representative maximum noise level of the well installation activity. The result of this noise measurement should be reported in the appropriate monthly report following the completion of monitoring wells at the MW-Z location."

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)

Dishcharge Monitoring Record



PIVOX
Corporation

PGE Project / Property Name: Topock Final Remedy

Project Number: ARC-18-T46

Project Number: ARC-18-T46

Affected System: Week of 1/21/19 - Pipeline B (STA 6+00 to STA 20+70) Thru Pipeline J (STA 16+20 to 11+50)

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

Dishcharge Monitoring Record



PGE Project / Property Name: Topock Final Remedy

Project Number: ARC-18-T46

Project Number: ARC-18-T46

Affected System: Week of 1/27/20 - Pipeline C8alt, 22+50 to Pipeline C8alt STA 26+90

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

Attachment G
Six-Week Look-Ahead Schedule

PG&E Topock Final Groundwater Remedy	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Primary Planned Activities	2/2/2020	2/3/2020	2/4/2020	2/5/2020	2/6/2020	2/7/2020	2/8/2020
Start Time (PST)		7:00 AM					
Pipeline C Installation F5	No Work	C8-Alt & C8 C5, C7, C8, C14	--	--			
TCS Approach Pipeline Installation F5, G5, G6		Pipeline installation @ B and J	--	--			
TCS Pipeline Construction G5		Pipeline M trench excavation & pull box install prep	Pipeline M trench excavation & pull box install prep	Pipeline M trench excavation & pull box install prep	Pipeline M trench excavation & pull box install	Pipeline M trench excavation & pull box install	Pipeline M trench excavation & pull box install
MW-20 Bench Facility Construction E5, F5		Facility foundation & yard piping construction	--	--			
Well Installation		--	IRZ-27 (F5), MW-Z (D5)	IRZ-29 (F5), MW-Z (D5)			
Well Development		--	IRZ-16 (E5)				
Well Testing		--	RB-2 (E5)				
Primary Planned Activities	2/9/2020	2/10/2020	2/11/2020	2/12/2020	2/13/2020	2/14/2020	2/15/2020
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation F5	--	C8-Alt & C8 C5, C7, C8, C14	C8-Alt & C8 C5, C7, C8, C14	C8-Alt & C8 C5, C7, C8, C14	--	--	--
TCS Approach Pipeline Installation F5, G5, G6	--	Pipeline installation @ B and J	--	--			
TCS Pipeline Construction G5	--	Pipeline M trench excavation & electrical trench installation	Pipeline M trench excavation & electrical trench installation	Pipeline M trench excavation & electrical trench installation	Pipeline M trench excavation & electrical trench installation	Pipeline M trench excavation & electrical trench installation	Pipeline M trench excavation & electrical trench installation
MW-20 Bench Facility Construction E5, F5	--	Facility foundation & yard piping construction	--	--			
Well Installation	IRZ-29 (F5), MW-Z (D5)	IRZ-29 (F5), MW-V site prep (D5), MW-Z (D5)	IRZ-29 (F5), MW-V site prep (D5), MW-Z (D5)	IRZ-29 (F5), MW-V site prep (D5), MW-Z (D5)	IRZ-29 (F5), MW-V site prep (D5), MW-Z (D5)	--	--
Well Development	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	--	--
Well Testing	IRZ-16 (E5)	IRZ-16 (E5)	IRZ-16 (E5)	IRZ-16 (E5)	IRZ-16 (E5)	--	--
Primary Planned Activities	2/16/2020	2/17/2020	2/18/2020	2/19/2020	2/20/2020	2/21/2020	2/22/2020
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation F5	--	Tentative: Pipeline C6 installation	--	--			
TCS Approach Pipeline Installation F5, G5, G6	--	Pipeline installation @ B and J	--	--			
TCS Pipeline Construction G5	--	Tentative: Pipeline M installation	--	--			
MW-20 Bench Facility Construction E5, F5	--	Facility foundation construction	Facility foundation construction	Facility foundation construction	Facility foundation construction	--	--
Well Installation	IRZ-29 (F5), MW-V (D5)	IRZ-31 (F5), MW-V (D5)	IRZ-31 (F5), MW-V (D5)	IRZ-31 (F5), MW-V (D5)	IRZ-31 (F5), MW-V (D5)	IRZ-29 (F5), MW-V (D5)	IRZ-29 (F5), MW-V (D5)
Well Development	IRZ-15 (E5)	IRZ-15 (E5)	IRZ-15 (E5)	IRZ-15 (E5)	IRZ-15 (E5)	--	--
Well Testing	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	RB-3 (E5)	--	--
Primary Planned Activities	3/1/2020	3/2/2020	3/3/2020	3/4/2020	3/5/2020	3/6/2020	3/7/2020
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation F5	--	Tentative: Pipeline C6 installation	--	--			
TCS Approach Pipeline Installation F5, G5, G6	--	Tentative: Pipeline J and F installation	--	--			
TCS Pipeline Construction G5	--	Tentative: Pipeline M installation	--	--			
MW-20 Bench Facility Construction E5, F5	--	Facility foundation construction	Facility foundation construction	Facility foundation construction	Facility foundation construction	--	--
Well Installation	IRZ-31 (F5)	IRZ-31 (F5)	IRZ-31 (F5)	IRZ-31 (F5)	IRZ-31 (F5)	IRZ-31 (F5)	IRZ-31 (F5)
Well Development	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)
Well Testing	--	--	--	--	--	--	--
Primary Planned Activities	3/8/2020	3/9/2020	3/10/2020	3/11/2020	3/12/2020	3/13/2020	3/14/2020
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Pipeline C Installation F5	--	Tentative: Pipeline C6 installation	--	--			
TCS Approach Pipeline Installation F5, G5, G6	--	Tentative: Pipeline J and F installation	--	--			
TCS Pipeline Construction G5	--	Tentative: Pipeline M installation	--	--			
MW-20 Bench Facility Construction E5, F5	--	Facility foundation construction	Facility foundation construction	Facility foundation construction	Facility foundation construction	--	--
Well Installation	IRZ-31 (F5)	IRZ-31 (F5)	IRZ-31 (F5)	--	--	--	--
Well Development	--	--	--	--	--	--	--
Well Testing	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	IRZ-15 (E5), IRZ-27 (F5)	--	--

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
Validated Groundwater Monitoring Data
(DTSC Condition of Approval xi)

Attachment H. Validated 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.

Location ID	Sample ID	Sample Type	Sample Method	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Calcium, dissolved Results by method EPA 200.7 (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total dissolved Results by method EPA 200.8 (µg/L)	Iron, dissolved Results by method EPA 200.7 (µg/L)	Magnesium, dissolved Results by method EPA 200.7 (mg/L)	Manganese, dissolved Results by method EPA 200.8 (µg/L)
PE-01	PE-01-1119	N	Tap	GW	11/7/2019	270	190	960	< 0.20	< 1.0	570	47	510
TW-03D	TW-03D-1119	N	Tap	GW	11/7/2019	160	210	2000	440	430	< 20	27	< 0.50

Location ID	Sample ID	Sample Type	Sample Method	Matrix	Sample Date	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)	pH Results by method SM 4500-H+ B (PHUNITS)	Sodium, dissolved Results by method EPA 200.7 (mg/L)	Specific conductance Results by method EPA 120.1 (µS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
PE-01	PE-01-1119	N	Tap	GW	11/7/2019	< 0.050	7.4	640	3600	290	2200
TW-03D	TW-03D-1119	N	Tap	GW	11/7/2019	2.8	7.2	1300	6800	480	4100

Notes:

Analyses were performed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

EPA = Environmental Protection Agency

GW = groundwater

mg/L = milligrams per liter

N = Normal

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Arsenic, dissolved Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)
C-BNS	C-BNS-Q419	N	R		GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-CON-D	C-CON-D-Q419	N	R		GW	11/21/2019	2.2	120					< 0.20	< 1.0
C-CON-S	C-CON-S-Q419	N	R		GW	11/21/2019	2.1	120					< 0.20	< 1.0
C-CON-S	MW-900-Q419	FD		C-CON-S-Q419	GW	11/21/2019	2.3	120					< 0.20	< 1.0
C-I-3-D	C-I-3-D-Q419	N	R		GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-I-3-S	C-I-3-S-Q419	N	R		GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-MAR-D	C-MAR-D-Q419	N	R		GW	11/21/2019	2.4	130					< 0.20	< 1.0
C-MAR-S	C-MAR-S-Q419	N	R		GW	11/21/2019	2.4	130					< 0.20	< 1.0
C-MAR-S	MW-901-Q419	FD		C-MAR-S-Q419	GW	11/21/2019	2.4	130					< 0.20	< 1.0
C-NR1-D	C-NR1-D-Q419	N	R		GW	11/21/2019	2.3	120					< 0.20	< 1.0
C-NR1-S	C-NR1-S-Q419	N	R		GW	11/21/2019	2.1	120					< 0.20	< 1.0
C-NR3-D	C-NR3-D-Q419	N	R		GW	11/21/2019	2	110					< 0.20	< 1.0
C-NR3-S	C-NR3-S-Q419	N	3V		GW	11/21/2019	2.3	120					< 0.20	< 1.0
C-NR4-D	C-NR4-D-Q419	N	R		GW	11/21/2019	2.3	120					< 0.20	< 1.0
C-NR4-S	C-NR4-S-Q419	N	R		GW	11/21/2019	2.2	120					< 0.20	< 1.0
C-R22A-D	C-R22A-D-Q419	N	R		GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-R22A-D	MW-902-Q419	FD		C-R22A-D-Q419	GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-R22A-S	C-R22A-S-Q419	N	3V		GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-R27-D	C-R27-D-Q419	N	R		GW	11/20/2019	2.1	110					< 0.20	< 1.0
C-R27-S	C-R27-S-Q419	N	R		GW	11/20/2019	2.1	110					< 0.20	< 1.0
C-TAZ-D	C-TAZ-D-Q419	N	R		GW	11/20/2019	2.2	110					< 0.20	< 1.0
C-TAZ-S	C-TAZ-S-Q419	N	R		GW	11/20/2019	2.3	110					< 0.20	< 1.0
R-19	R-19-Q419	N	R		GW	11/21/2019	2.2	120					< 0.20	< 1.0
R-28	R-28-Q419	N	R		GW	11/20/2019	2.1	110	0.17	< 1.0	68	87	< 0.20	< 1.0
R63	R63-Q419	N	R		GW	11/20/2019	2.2	110					< 0.20	< 1.0
RRB	RRB-Q419	N	Tap		GW	11/21/2019	2.4	300					< 0.20	< 1.0
SW1	SW1-Q419	N	Tap		GW	11/21/2019							< 0.20	< 1.0
SW2	SW2-Q419	N	Tap		GW	11/21/2019							< 0.20	< 1.0

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Iron Results by method SW 6010B (µg/L)	Magnesium, dissolved Results by method SW 6010B (µg/L)	Manganese, dissolved Results by method SW 6020 (mg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)	pH Results by method SM 4500-H+ B (PHUNITS)	Potassium, dissolved Results by method SW 6010B (mg/L)
C-BNS	C-BNS-Q419	N	R		GW	11/20/2019	37	< 20		< 0.50	4.4	0.28	8.2
C-CON-D	C-CON-D-Q419	N	R		GW	11/21/2019	440	< 20		< 0.50	4.8	0.25	8.3
C-CON-S	C-CON-S-Q419	N	R		GW	11/21/2019	100	< 20		< 0.50	4.6	0.26	8.3
C-CON-S	MW-900-Q419	FD		C-CON-S-Q419	GW	11/21/2019	97	< 20		< 0.50	4.8	0.25	8.3
C-I-3-D	C-I-3-D-Q419	N	R		GW	11/20/2019	76	< 20		< 0.50	4.4	0.26	8.3
C-I-3-S	C-I-3-S-Q419	N	R		GW	11/20/2019	42	< 20		< 0.50	4.4	0.27	8.3
C-MAR-D	C-MAR-D-Q419	N	R		GW	11/21/2019	2,000	75		17	5.4	0.3	8
C-MAR-S	C-MAR-S-Q419	N	R		GW	11/21/2019	1,500	37		9.9	5.1	0.29	8
C-MAR-S	MW-901-Q419	FD		C-MAR-S-Q419	GW	11/21/2019	1,900	91		9.4	5.2	0.28	8
C-NR1-D	C-NR1-D-Q419	N	R		GW	11/21/2019	200	23		< 0.50	4.9	0.27	8.3
C-NR1-S	C-NR1-S-Q419	N	R		GW	11/21/2019	160	< 20		< 0.50	4.7	0.28	8.3
C-NR3-D	C-NR3-D-Q419	N	R		GW	11/21/2019	150	35		< 0.50	4.5	0.3	8.2
C-NR3-S	C-NR3-S-Q419	N	3V		GW	11/21/2019	140	28		< 0.50	4.8	0.27	8.3
C-NR4-D	C-NR4-D-Q419	N	R		GW	11/21/2019	140	49		< 0.50	4.8	0.27	8.3
C-NR4-S	C-NR4-S-Q419	N	R		GW	11/21/2019	120	52		< 0.50	4.7	0.28	8.2
C-R22A-D	C-R22A-D-Q419	N	R		GW	11/20/2019	60	23		< 0.50	4.4	0.24	8.3
C-R22A-D	MW-902-Q419	FD		C-R22A-D-Q419	GW	11/20/2019	89	< 20		< 0.50	4.6	0.27	8.3
C-R22A-S	C-R22A-S-Q419	N	3V		GW	11/20/2019	27	< 20		< 0.50	4.4	0.26	8.2
C-R27-D	C-R27-D-Q419	N	R		GW	11/20/2019	< 20	< 20		< 0.50	4.6	0.23	8.3
C-R27-S	C-R27-S-Q419	N	R		GW	11/20/2019	30	< 20		< 0.50	4.9	0.31	8.3
C-TAZ-D	C-TAZ-D-Q419	N	R		GW	11/20/2019	140	< 20		< 0.50	4.4	0.28	8.3
C-TAZ-S	C-TAZ-S-Q419	N	R		GW	11/20/2019	21	< 20		< 0.50	4.8	0.25	8.3
R-19	R-19-Q419	N	R		GW	11/21/2019	1,800	1800		1.5	4.7	0.26	8.3
R-28	R-28-Q419	N	R		GW	11/20/2019	67	< 20	24	< 0.50	5.1	0.28	8.3
R63	R63-Q419	N	R		GW	11/20/2019	40	< 20		< 0.50	4.3	0.28	8.2
RRB	RRB-Q419	N	Tap		GW	11/21/2019	180	210		590	6.3	0.3	7.3
SW1	SW1-Q419	N	Tap		GW	11/21/2019							7.8
SW2	SW2-Q419	N	Tap		GW	11/21/2019							6.9

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Selenium, dissolved Results by method SW 6020 (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Specific conductance Results by method EPA 120.1 (µS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)	Total Suspended Solids (TSS) Results by method SM 2540 D (mg/L)	Deuterium Results by method CFIRM (0/00)*	Oxygen 18 Results by method CFIRM (0/00)*
C-BNS	C-BNS-Q419	N	R		GW	11/20/2019	1.5		910			< 5.0		
C-CON-D	C-CON-D-Q419	N	R		GW	11/21/2019	1.6		890			32		
C-CON-S	C-CON-S-Q419	N	R		GW	11/21/2019	1.7		900			26		
C-CON-S	MW-900-Q419	FD		C-CON-S-Q419	GW	11/21/2019	1.6		910			28		
C-I-3-D	C-I-3-D-Q419	N	R		GW	11/20/2019	1.4		910			< 5.0		
C-I-3-S	C-I-3-S-Q419	N	R		GW	11/20/2019	1.6		910			< 5.0		
C-MAR-D	C-MAR-D-Q419	N	R		GW	11/21/2019	1.3		1,100			88		
C-MAR-S	C-MAR-S-Q419	N	R		GW	11/21/2019	1.3		1,100			87		
C-MAR-S	MW-901-Q419	FD		C-MAR-S-Q419	GW	11/21/2019	1.3		1,100			90		
C-NR1-D	C-NR1-D-Q419	N	R		GW	11/21/2019	1.8		900			27		
C-NR1-S	C-NR1-S-Q419	N	R		GW	11/21/2019	1.3		900			22		
C-NR3-D	C-NR3-D-Q419	N	R		GW	11/21/2019	1.5		900			20		
C-NR3-S	C-NR3-S-Q419	N	3V		GW	11/21/2019	1.4		900			18		
C-NR4-D	C-NR4-D-Q419	N	R		GW	11/21/2019	1.8		900			20		
C-NR4-S	C-NR4-S-Q419	N	R		GW	11/21/2019	1.2		910			15		
C-R22A-D	C-R22A-D-Q419	N	R		GW	11/20/2019	1.7		920			< 5.0		
C-R22A-D	MW-902-Q419	FD		C-R22A-D-Q419	GW	11/20/2019	1.4		920			< 5.0		
C-R22A-S	C-R22A-S-Q419	N	3V		GW	11/20/2019	1.3		920			< 5.0		
C-R27-D	C-R27-D-Q419	N	R		GW	11/20/2019	1.3		910			< 5.0		
C-R27-S	C-R27-S-Q419	N	R		GW	11/20/2019	1.6		920			< 5.0		
C-TAZ-D	C-TAZ-D-Q419	N	R		GW	11/20/2019	1.5		920			< 5.0		
C-TAZ-S	C-TAZ-S-Q419	N	R		GW	11/20/2019	1.7		910			< 5.0		
R-19	R-19-Q419	N	R		GW	11/21/2019	1.7		880			72		
R-28	R-28-Q419	N	R		GW	11/20/2019	1.8	90	920	210	580	< 5.0	95.6	11.66
R63	R63-Q419	N	R		GW	11/20/2019	1.6		920			16		
RRB	RRB-Q419	N	Tap		GW	11/21/2019	1.5		3,200			34		
SW1	SW1-Q419	N	Tap		GW	11/21/2019			900					
SW2	SW2-Q419	N	Tap		GW	11/21/2019			960					

Notes:

*Analyses were performed by Pace Analytical. All other samples were analyzed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

3V = three casing volumes

CFIRM = Continuous Flow Isotope Mass Spectrometry

FD = field duplicate

GW = groundwater

mg/L = milligrams per liter

R = river sample

N = Normal

SM = standard method

SW = solid waste

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320	Aluminum Results by method SW 6010B (mg/L)	Aluminum, dissolved Results by method SW 6010B (µg/L)	Ammonia as nitrogen Results by method A4500NH (mg/L)*	Antimony Results by method SW 6020 (µg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic Results by method SW 6020 (µg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	310	< 50	< 50	0.18	< 0.50	< 0.50	3
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	88	2,000	< 50	0.12	< 0.50	< 0.50	3.7
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	88	1,200	< 50	0.12	< 0.50	< 0.50	3.7
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	76	< 50	< 50	0.23	< 0.50	< 0.50	1.3
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	52	350	< 250	0.27	< 0.50	< 0.50	2.9
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	49	< 250	< 250	0.23	< 0.50	< 0.50	2.3
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	62	< 250	< 250	0.19	< 0.50	< 2.5	3.7
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	89	220	< 50	0.23	< 0.50	< 0.50	1.2
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	50	< 250	< 50	0.19	< 0.50	< 2.5	2.3
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	74	88	< 50	0.16	< 0.50	< 2.5	1.5
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	40	< 250	< 50	0.19	< 0.50	< 2.5	3.9
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	870	1,200	< 50	2.4	< 0.50	< 2.5	6.2
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	150	52	< 50	0.26	< 0.50	< 0.50	1.3
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	160	< 50	< 50	0.17	< 0.50	< 0.50	1.3
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	48	< 250	< 50	0.53	< 0.50	< 2.5	2.6
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	47	< 250	< 250		< 0.50	< 2.5	3.7
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	880	200	< 50	4.4	< 0.50	< 0.50	12
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	80	72	< 50	0.12	< 0.50	< 0.50	2.4
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	80	< 250	< 50	0.14	< 0.50	< 0.50	2.3
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	65	< 250	< 250	0.08	< 0.50	< 2.5	1.8
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	46	< 250	< 250	0.08	< 0.50	< 0.50	3.2
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	39	< 250	< 250	0.11	< 0.50	< 2.5	3.8
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	81	250	< 50	0.08	< 0.50	< 0.50	1.7
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	57	1,600	77	0.06	< 0.50	< 0.50	1.4
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	59	2,000	110	0.06	< 0.50	< 0.50	1.5
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	51	< 50	< 50	0.07	< 0.50	< 2.5	2.1
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	47	< 250	< 50	0.14	< 0.50	< 2.5	4.4
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	78	730	86	0.07	< 0.50	< 0.50	1.2
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	48	190	< 50	0.06	< 0.50	< 0.50	0.87
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	47	210	< 50	0.13	< 0.50	< 0.50	2
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	43	< 250	< 50	0.09	< 0.50	< 0.50	3.3
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	160	1,600	110	0.11	< 0.50	< 0.50	23
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	120	440	< 50	0.09	0.61	0.92	16
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	110	< 50	< 50	0.13	< 0.50	< 0.50	6.4
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	95	< 250	< 250	0.1	< 0.50	< 0.50	3.7

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Arsenic, dissolved Results by method SW 6020 ($\mu\text{g}/\text{L}$)	Barium Results by method SW 6020 ($\mu\text{g}/\text{L}$)	Barium, dissolved Results by method SW 6020 ($\mu\text{g}/\text{L}$)	Beryllium Results by method SW 6020 ($\mu\text{g}/\text{L}$)	Beryllium, dissolved Results by method SW 6020 ($\mu\text{g}/\text{L}$)	Boron Results by method SW 6010B ($\mu\text{g}/\text{L}$)	Boron, dissolved Results by method SW 6010B (mg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	3	58	59	< 0.50	< 0.50	1,300	1.3
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	2.8	85	67	< 0.50	< 0.50	550	0.64
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	2.8	81	66	< 0.50	< 0.50	550	0.63
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	1.2	90	86	< 2.5	< 2.5	1,100	1
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	2.7	220	180	< 2.5	< 2.5	2,000	1.6
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	2.2	140	120	< 2.5	< 2.5	3,300	2.9
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	3.7	68	67	< 2.5	< 2.5	3,900	3.5
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	0.97	72	67	< 0.50	< 0.50	550	0.62
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	2.3	83	79	< 2.5	< 2.5	1,600	1.3
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	1.4	110	110	< 2.5	< 2.5	1,200	1.3
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	4.1	120	130	< 2.5	< 2.5	2,900	2.1
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	4.7	80	53	< 2.5	< 0.50	2,800	2.2
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	1.4	57	53	< 2.5	< 0.50	1,300	1.4
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	1.4	57	54	< 2.5	< 0.50	1,200	1.4
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	2.6	55	56	< 2.5	< 2.5	2,000	1.4
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	3.6	61	61	< 2.5	< 2.5	3,300	3.4
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	13	64	63	< 0.50	< 0.50	1,000	1.4
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	2.2	48	42	< 2.5	< 0.50	1,400	1.6
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	2.1	46	43	< 2.5	< 0.50	1,600	1.6
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	1.4	69	64	< 2.5	< 2.5	1,300	1.4
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	3.4	54	53	< 2.5	< 2.5	2,300	2.4
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	3.9	49	46	< 2.5	< 2.5	1,600	1.9
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	1.4	49	43	< 0.50	< 0.50	340	0.45
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	1	240	220	< 0.50	< 0.50	400	0.5
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	1.1	220	230	< 0.50	< 0.50	390	0.47
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	2.1	110	100	< 2.5	< 2.5	1,200	1.2
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	4.6	61	62	< 2.5	< 0.50	1,900	1.6
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	1.1	89	87	< 0.50	< 0.50	410	0.46
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	0.75	270	260	< 0.50	< 0.50	630	0.68
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	2.1	110	110	< 2.5	< 2.5	1,200	1.2
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	3.4	100	92	< 2.5	< 2.5	1,700	1.6
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	21	23	9.7	< 0.50	< 0.50	710	0.61
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	16	59	46	< 0.50	< 0.50	780	0.68
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	6.7	73	68	< 0.50	< 0.50	1,100	1.1
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	4.8	110	96	< 2.5	< 2.5	3,600	3.4

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Bromide Results by method EPA 300.0 (mg/L)	Cadmium Results by method SW 6020 (μ g/L)	Cadmium, dissolved Results by method SW 6020 (μ g/L)	Calcium Results by method SW 6010B (μ g/L)	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (μ g/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	< 2.5	< 0.50	< 0.50	120,000	130	520	59
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	< 2.5	< 0.50	< 0.50	150,000	160	1,200	17
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	< 2.5	< 0.50	< 0.50	150,000	160	1,200	17
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	< 2.5	< 0.50	< 0.50	330,000	320	4,000	1.8
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	< 2.5	< 0.50	< 0.50	490,000	590	5,500	< 1.0
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	< 2.5	< 0.50	< 0.50	410,000	470	7,600	< 1.0
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	< 2.5	< 0.50	< 2.5	280,000	330	10,000	< 1.0
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	< 2.5	< 0.50	< 0.50	140,000	140	880	44
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	< 5.0	< 0.50	< 2.5	440,000	460	5,300	< 1.0
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	< 5.0	< 0.50	< 2.5	610,000	590	6,400	390
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	< 5.0	< 0.50	< 2.5	300,000	300	7,300	< 1.0
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	< 2.5	< 0.50	< 2.5	190,000	190	3,000	< 0.20
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	< 2.5	< 0.50	< 0.50	310,000	290	2,300	0.31
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	< 2.5	< 0.50	< 0.50	300,000	310	2,300	0.31
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	< 5.0	< 0.50	< 2.5	610,000	680	6,400	3.9
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	< 2.5	< 0.50	< 2.5	130,000	130	7,500	< 1.0
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	< 2.5	< 0.50	< 0.50	200,000	200	1,700	< 1.0
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	< 5.0	< 0.50	< 0.50	260,000	260	2,400	0.24
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	< 5.0	< 0.50	< 0.50	310,000	250	2,400	0.24
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	< 5.0	< 0.50	< 2.5	570,000	590	6,000	< 1.0
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	< 2.5	< 0.50	< 0.50	100,000	110	6,900	< 1.0
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	< 5.0	< 0.50	< 2.5	320,000	320	3,600	7.7
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	< 2.5	< 0.50	< 0.50	87,000	85	380	29
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	< 5.0	< 0.50	< 0.50	340,000	330	1,700	0.67
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	< 5.0	< 0.50	< 0.50	330,000	320	1,700	0.72
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	< 5.0	< 0.50	< 2.5	330,000	310	2,700	< 0.20
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	< 5.0	< 0.50	< 2.5	240,000	220	4,000	28
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	< 1.0	< 0.50	< 0.50	110,000	120	510	24
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	< 5.0	< 0.50	< 0.50	460,000	490	2,100	8.1
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	< 5.0	< 0.50	< 0.50	300,000	270	2,800	< 0.20
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	< 5.0	< 0.50	< 0.50	370,000	300	3,400	< 0.20
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	< 2.5	< 0.50	< 0.50	14,000	11	390	< 0.20
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	< 2.5	< 0.50	< 0.50	21,000	18	600	< 0.20
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	< 2.5	< 0.50	< 0.50	22,000	21	1,000	< 0.20
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	< 2.5	< 0.50	< 0.50	85,000	91	4,500	< 1.0

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Chromium, total Results by method SW 6020 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)	Cobalt Results by method SW 6020 (µg/L)	Cobalt, dissolved Results by method SW 6020 (µg/L)	Copper Results by method SW 6020 (µg/L)	Copper, dissolved Results by method SW 6020 (µg/L)	Fluoride Results by method EPA 300.0 (mg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	64	65	< 0.50	< 0.50	< 1.0	< 1.0	2.1
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	20	15	0.72	< 0.50	< 1.0	< 1.0	3.1
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	19	16	0.53	< 0.50	< 1.0	< 1.0	3
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	4.1	1.4	< 0.50	< 0.50	< 1.0	< 1.0	2.9
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	4.8	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	3.6
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	1.8	< 1.0	< 0.50	< 0.50	5.7	< 1.0	4.6
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	< 1.0	< 1.0	< 0.50	< 0.50	2.9	1.4	6.6
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	40	40	< 0.50	< 0.50	2.4	< 1.0	3.6
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	42	< 1.0	< 2.5	< 0.50	< 1.0	< 1.0	3.7
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	370	340	< 0.50	< 0.50	< 1.0	< 1.0	3.4
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	15	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	5.4
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	14	< 1.0	0.95	< 0.50	< 1.0	< 1.0	5.4
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	3.1
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	3.3
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	4.2	2.5	< 0.50	< 0.50	< 1.0	< 1.0	3.6
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	1.2	1.1	< 0.50	< 0.50	< 1.0	< 1.0	8.3
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	14	< 1.0	0.86	0.71	< 1.0	< 1.0	1.9
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	19	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	3.4
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	23	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	3.5
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	310	< 1.0	2.6	< 0.50	< 1.0	< 1.0	3.2
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	8.9	< 1.0	< 2.5	< 0.50	< 1.0	1.5	6.6
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	7.5	6.6	< 0.50	< 0.50	< 1.0	< 1.0	5.4
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	31	26	< 0.50	< 0.50	< 1.0	< 1.0	1.9
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	6	< 1.0	0.53	< 0.50	< 1.0	< 1.0	3
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	7.4	1.1	0.69	< 0.50	< 1.0	< 1.0	3.1
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	4.3
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	25	27	< 0.50	< 2.5	< 1.0	< 1.0	4.8
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	26	23	< 0.50	< 0.50	< 1.0	< 1.0	2.5
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	13	7.9	0.55	< 0.50	< 1.0	< 1.0	2.8
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	3.9
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	< 5.0	< 1.0	< 2.5	< 0.50	< 1.0	< 1.0	5.2
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	2.2	< 1.0	0.58	< 0.50	< 1.0	< 1.0	4.2
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	1.3	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	4.9
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	5.7
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	7.4

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Iron Results by method SW 6010B (µg/L)	Iron, dissolved Results by method SW 6010B (µg/L)	Lead Results by method SW 6020 (µg/L)	Lead, dissolved Results by method SW 6020 (µg/L)	Magnesium Results by method SW 6010B (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese Results by method SW 6020 (µg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	< 20	< 20	< 1.0	< 1.0	13,000	13	48	51
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	2,000	55	< 1.0	< 1.0	28,000	28	500	220
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	1,300	91	< 1.0	< 1.0	28,000	28	400	210
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	60	47	< 1.0	< 5.0	70,000	67	740	770
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	950	210	< 1.0	< 5.0	85,000	76	2700	3100
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	680	280	< 1.0	< 25	22,000	19	730	870
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	610	560	< 5.0	< 25	14,000	11	600	590
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	350	31	< 1.0	< 1.0	22,000	24	1.4	< 0.50
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	360	< 20	< 5.0	< 5.0	42,000	34	270	280
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	270	< 20	< 5.0	< 5.0	65,000	73	1200	1100
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	130	89	< 5.0	< 5.0	10,000	7.2	260	280
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	2,400	310	< 5.0	< 5.0	180,000	160	370	340
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	120	53	< 1.0	< 5.0	34,000	36	140	150
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	120	64	< 1.0	< 1.0	34,000	38	130	140
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	140	< 20	< 5.0	< 5.0	55,000	42	230	140
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	< 100	< 100	< 5.0	< 5.0	3,800	4.1	130	120
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	2,700	2,400	< 1.0	< 1.0	220,000	230	210	170
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	190	33	< 1.0	< 5.0	18,000	18	52	46
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	240	40	< 1.0	< 5.0	25,000	19	56	43
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	1,200	< 100	< 1.0	< 5.0	77,000	80	610	550
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	< 100	< 100	< 1.0	< 1.0	2,900	3.1	< 2.5	130
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	< 100	< 100	< 1.0	< 5.0	22,000	23	< 0.50	< 0.50
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	330	41	< 1.0	< 1.0	14,000	15	4.1	< 0.50
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	2,100	160	< 1.0	< 1.0	59,000	58	220	130
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	2,300	200	< 1.0	< 1.0	57,000	55	210	150
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	110	100	< 1.0	< 5.0	29,000	28	180	190
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	< 100	< 20	< 1.0	< 5.0	13,000	9.8	< 0.50	< 2.5
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	1,200	220	< 1.0	< 1.0	16,000	17	51	9.9
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	410	54	< 1.0	< 1.0	75,000	80	2.5	< 0.50
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	250	43	< 1.0	< 1.0	26,000	26	89	90
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	< 100	< 100	< 1.0	< 1.0	27,000	21	56	49
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	2,000	160	2.4	< 1.0	2,700	1.9	25	< 0.50
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	600	82	< 1.0	< 1.0	2,300	2	6.2	< 0.50
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	94	50	< 1.0	< 1.0	2,700	2.7	< 0.50	< 0.50
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	140	< 100	< 1.0	< 5.0	9,400	8.7	23	< 0.50

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Mercury Results by method EPA 7470A (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum Results by method SW 6020 (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)	Nickel Results by method SW 6020 (µg/L)	Nickel, dissolved Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)	Potassium, dissolved Results by method SW 6010B (mg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	< 0.20	< 0.20	15	15	5.5	6.3	4.4	12
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	< 0.20	< 0.20	14	13	< 1.0	< 1.0	2	9.8
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	< 0.20	< 0.20	14	13	< 1.0	< 1.0	2.1	9.9
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	< 0.20	< 0.20	33	33	< 1.0	< 1.0	2	16
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	< 0.20	< 0.20	84	81	< 1.0	< 1.0	0.062	25
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	< 0.20	< 0.20	130	130	< 5.0	< 1.0	< 0.050	67
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	< 0.20	< 0.20	200	210	< 5.0	< 1.0	< 0.050	74
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	21	20	< 1.0	< 1.0	2.1	8.5
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	34	31	19	< 1.0	1.5	26
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	38	33	19	< 1.0	1.9	32
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	91	85	6.7	< 1.0	0.25	45
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	97	88	10	1.4	0.1	44
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	4.6	4.2	< 1.0	< 1.0	0.5	18
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	< 0.20	< 0.20	4.5	4.3	< 1.0	< 1.0	0.51	19
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	34	29	< 1.0	< 1.0	1.5	46
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	< 0.20	< 0.20	270	240	< 1.0	< 5.0	1.2	44
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	13	11	< 5.0	< 1.0	0.079	20
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	11	11	7.7	< 1.0	0.73	15
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	< 0.20	< 0.20	11	11	9.4	< 1.0	0.74	15
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	25	19	150	3.3	1.5	39
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	160	160	< 5.0	< 1.0	1.1	46
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	< 0.20	< 0.20	34	30	< 1.0	< 1.0	0.56	22
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	< 0.20	< 0.20	19	18	< 1.0	< 1.0	10	8
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	< 0.20	< 0.20	7.6	6.9	1.6	< 1.0	0.95	14
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	< 0.20	< 0.20	6.5	7.3	< 5.0	< 1.0	0.94	14
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	< 0.20	< 0.20	26	24	< 1.0	< 1.0	0.48	23
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	< 0.20	< 0.20	49	46	< 1.0	< 5.0	0.83	33
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	9.4	9.1	< 1.0	< 1.0	8.7	9.6
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	5.4	4.6	23	16	1.1	18
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	27	28	< 5.0	< 1.0	0.55	18
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	< 0.20	< 0.20	47	43	< 1.0	< 1.0	0.56	23
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	< 0.20	< 0.20	19	18	1.1	< 1.0	0.11	5.6
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	< 0.20	< 0.20	22	22	< 1.0	< 1.0	0.6	10
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	< 0.20	< 0.20	46	45	< 1.0	< 1.0	0.051	14
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	< 0.20	< 0.20	200	210	< 1.0	< 1.0	< 0.050	39

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Selenium Results by method SW 6020 (µg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)	Silver Results by method SW 6020 (µg/L)	Silver, dissolved Results by method SW 6020 (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Sulfate Results by method EPA 300.0 (mg/L)	Thallium Results by method SW 6020 (µg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	9.5	9.8	< 0.50	< 0.50	490	390	< 0.50	< 0.50
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	1.2	1.8	< 0.50	< 0.50	690	230	< 0.50	< 0.50
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	1.8	1.5	< 0.50	< 0.50	670	230	< 0.50	< 0.50
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	1.4	1.2	< 0.50	< 0.50	2,400	590	< 0.50	< 2.5
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	< 0.50	< 0.50	< 0.50	< 0.50	4,000	1,000	< 0.50	< 2.5
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	< 0.50	< 0.50	< 0.50	< 2.5	5,200	1,100	< 0.50	< 12
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	< 0.50	< 0.50	< 0.50	< 2.5	7,000	1,600	< 2.5	< 12
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	1.8	2.1	< 0.50	< 0.50	470	180	< 0.50	< 0.50
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	< 2.5	< 2.5	< 0.50	< 0.50	3,300	790	< 2.5	< 2.5
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	1.9	< 2.5	< 0.50	< 0.50	4,400	960	< 2.5	< 2.5
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	< 2.5	< 2.5	< 0.50	< 0.50	4,800	900	< 2.5	< 2.5
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	4.7	4.5	< 0.50	< 0.50	2,500	1,300	< 2.5	< 2.5
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	< 0.50	< 0.50	< 0.50	< 0.50	1,500	580	< 0.50	< 2.5
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	< 0.50	< 0.50	< 0.50	< 0.50	1,700	580	< 0.50	< 0.50
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	< 2.5	< 2.5	< 0.50	< 0.50	4,500	1,200	< 2.5	< 2.5
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	< 2.5	< 2.5	< 0.50	< 0.50	5,300	930	< 2.5	< 2.5
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	0.71	0.92	< 0.50	< 0.50	1,600	1,300	< 0.50	< 0.50
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	< 0.50	< 0.50	< 0.50	< 0.50	1,600	630	< 0.50	< 2.5
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	< 0.50	< 0.50	< 0.50	< 0.50	1,600	640	< 0.50	< 2.5
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	< 0.50	< 0.50	< 0.50	< 2.5	3,800	1,100	< 0.50	< 2.5
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	0.62	0.86	< 0.50	< 2.5	4,900	1,000	< 0.50	< 0.50
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	< 0.50	< 0.50	< 0.50	< 0.50	2,300	500	< 0.50	< 2.5
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	5.3	4.5	< 0.50	< 0.50	240	190	< 0.50	< 0.50
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	0.82	0.76	< 0.50	< 0.50	800	230	1.2	1.1
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	0.91	0.66	< 0.50	< 0.50	800	230	1.2	1.2
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	0.68	< 2.5	< 0.50	< 0.50	1,700	350	< 0.50	< 2.5
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	< 2.5	< 2.5	< 0.50	< 0.50	2,600	500	< 0.50	< 2.5
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	5.6	5.3	< 0.50	< 0.50	340	170	< 0.50	< 0.50
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	0.89	0.61	< 0.50	< 0.50	950	330	< 0.50	< 0.50
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	0.74	0.93	< 0.50	< 0.50	1,400	340	< 0.50	< 0.50
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	0.75	0.81	< 0.50	< 0.50	1,600	430	< 0.50	< 0.50
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	< 0.50	< 0.50	< 0.50	< 0.50	380	90	< 0.50	< 0.50
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	0.57	< 0.50	< 0.50	< 0.50	440	96	< 0.50	< 0.50
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	< 0.50	< 0.50	< 0.50	< 0.50	790	130	< 0.50	< 0.50
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	< 0.50	< 0.50	< 0.50	< 0.50	3,000	350	< 0.50	< 2.5

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Total dissolved solids Results by method SM 2540 C (mg/L)	Total organic carbon Results by method SM 5310 C (mg/L)	TPH as diesel Results by method SW 8015B (µg/L)	TPH as motor oil Results by method SW 8015B (µg/L)	Vanadium Results by method SW 6020 (µg/L)	Vanadium, dissolved Results by method SW 6020 (µg/L)	Zinc Results by method SW 6020 (µg/L)	Zinc, dissolved Results by method SW 6020 (µg/L)
IRZ-39-SC-28-39	IRZ-39-SC-28-39	N			GW	11/5/2019	1,700	< 1.0	< 52	64	< 1.0	< 1.0	110	120
MW-75-033	MW-B-33-1119	N	LF		GW	11/19/2019	2,600	< 1.0			5.9	2.2	< 10	< 10
MW-75-033	MW-926-Q419	FD		MW-B-33-1119	GW	11/19/2019	2,500	< 1.0			5	2	< 10	< 10
MW-75-117	MW-B-117-1119	N	LF		GW	11/18/2019	8,600	< 1.0			1.5	< 1.0	< 10	< 10
MW-75-202	MW-B-202-1119	N	LF		GW	11/18/2019	12,000	< 1.0			1.2	< 1.0	< 10	< 10
MW-75-267	MW-B-267R-1119	N	LF		GW	11/18/2019	14,000	< 1.0			1.2	< 1.0	< 10	< 10
MW-75-337	MW-B-337-1119	N	LF		GW	11/18/2019	19,000	< 1.0			1.1	< 1.0	< 10	< 10
MW-76-039	MW-C-39-1119	N	LF		GW	11/21/2019	2,000	< 1.0			3.2	2.3	< 10	< 10
MW-76-156	MW-C-156-1119	N	LF		GW	11/21/2019	11,000	< 10			3.5	2.4	< 50	< 10
MW-76-181	MW-C-181-1119	N	LF		GW	11/21/2019	13,000	< 10			1.6	1.1	< 10	< 10
MW-76-218	MW-C-218-1119	N	LF		GW	11/21/2019	14,000	< 1.0			< 1.0	< 1.0	< 10	< 10
MW-77-046	MW-D-46R-1119	N	LF		GW	11/21/2019	8,400	1.5			8.3	5.2	< 10	< 10
MW-77-102	MW-D-102-1119	N	LF		GW	11/21/2019	5,100	< 1.0			3.4	2.9	< 10	< 10
MW-77-102	MW-929-Q419	FD		MW-D-102-1119	GW	11/21/2019	5,000	< 1.0			3.6	3.2	< 10	< 10
MW-77-158	MW-D-158-1119	N	LF		GW	11/21/2019	12,000	< 1.0			3.4	3.2	< 10	< 10
MW-77-187	MW-D-187-1119	N	LF		GW	11/21/2019	14,000	< 1.0			3.8	4	< 10	< 10
MW-82-046	MW-H-46-1119	N	LF		GW	11/20/2019	5,700	1.7			1.8	1.4	< 10	< 10
MW-82-112	MW-H-112-1119	N	LF		GW	11/20/2019	5,300	< 1.0			6	5.1	< 10	< 10
MW-82-112	MW-927-Q419	FD		MW-H-112-1119	GW	11/20/2019	5,300	< 1.0			5.8	4.8	< 10	< 10
MW-82-168	MW-H-168-1119	N	LF		GW	11/20/2019	14,000	< 1.0			< 5.0	1.6	< 10	< 10
MW-82-198	MW-H-198-1119	N	LF		GW	11/20/2019	13,000	< 1.0			< 5.0	2.2	< 10	< 10
MW-83-180	MW-L-180-1119	N	LF		GW	11/22/2019	7,900	< 1.0			9.3	9.6	< 10	< 10
MW-84-057	MW-M-57-1119	N	LF		GW	11/19/2019	1,100	< 1.0			7.9	6.5	< 10	< 10
MW-84-095	MW-M-95-1119	N	LF		GW	11/19/2019	3,800	< 1.0			6.2	2.7	< 10	13
MW-84-095	MW-928-Q419	FD		MW-M-95-1119	GW	11/19/2019	4,000	< 1.0			6.4	2.9	< 10	< 10
MW-84-132	MW-M-132-1119	N	LF		GW	11/22/2019	6,100	< 10			3.9	3.9	< 10	< 10
MW-84-193	MW-M-193-1119	N	LF		GW	11/22/2019	8,300	< 1.0			7.6	1.8	< 10	< 10
MW-87-109	MW-R-109-1119	N	LF		GW	11/20/2019	1,300	< 1.0			5.4	3.5	< 10	< 10
MW-87-139	MW-R-139-1119	N	LF		GW	11/20/2019	4,300	< 1.0			4.1	3.3	< 10	< 10
MW-87-192	MW-R-192-1119	N	LF		GW	11/20/2019	6,200	< 1.0			5.4	4.9	< 10	< 10
MW-87-275	MW-R-275-1119	N	LF		GW	11/20/2019	7,600	< 1.0			< 5.0	3.5	< 10	< 10
MW-92-037	MW-Y-37-1119	N	LF		GW	11/19/2019	980	< 1.0			2	< 1.0	< 10	< 10
MW-92-072	MW-Y-72-1119	N			GW	11/19/2019	1,300	< 1.0			6.2	5.4	< 10	< 10
MW-92-102	MW-Y-102-1119	N	LF		GW	11/19/2019	2,100	< 1.0			< 1.0	< 1.0	< 10	< 10
MW-92-122	MW-Y-122-1119	N	LF		GW	11/19/2019	8,600	< 1.0			< 1.0	< 1.0	< 10	< 10

Notes:

*Analyses were performed by Enthalpy Analytical. All other samples were

analyzed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

GW = groundwater

LF = low flow

mg/L = milligrams per liter

N = Normal

SW = solid waste

SM = standard method

TPH = total petroleum hydrocarbons

Acronyms and Abbreviations:

µg/L = micrograms per liter

EPA = Environmental Protection Agency

FD = field duplicate

Location ID	Sample ID	Sample Type	Matrix	Sample Date	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)
IRZ-39	IRZ-39-110419	N	GW	11/4/2019	36	38
MW-11D	MW-11D-110219	N	GW	11/2/2019	17	26
MW-88-109	MW-S-107R-111319	N	GW	11/13/2019	29	28
MW-91-045	MW-X-45-111819	N	GW	11/18/2019	< 0.20	< 1.0
MW-91-120	MW-X-120-112019	N	GW	11/20/2019	< 0.20	< 1.0
MW-91-170	MW-X-170-112319	N	GW	11/23/2019	< 0.20	< 1.0
MW-91-320	MW-X-320-112219	N	GW	11/22/2019	< 1.0	< 1.0

Notes:

Analyses were performed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

EPA = Environmental Protection Agency

GW = groundwater

N = Normal

SW = solid waste

TMP = Transition Monitoring Program

Preliminary Groundwater Monitoring Program 2019-12 AZ Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method 2320B (mg/L)	Arsenic, dissolved Results by method SW 6020A (µg/L)	*Boron, dissolved Results by method SW 6020A (mg/L)	*Calcium, dissolved Results by method SW 6020A (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	*Chromium, total dissolved Results by method SW 6020A (µg/L)	*Iron, dissolved Results by method SW 6020A (µg/L)
MW-54-085	MW-54-085-Q419	N	LF		GW	12/10/2019	147	< 5.0	1.24 1.21	174 150	2,770	< 0.20	< 5.0 < 50	< 500 < 5000
MW-54-140	MW-54-140-Q419	N	LF		GW	12/10/2019	96.8	< 5.0	2.06 1.74	149 121	3,860	< 1.0	< 5.0 < 100	< 500 < 10000
MW-54-195	MW-54-195-Q419	N	LF		GW	12/10/2019	58	< 5.0	2.68 2.49	120 112	5,790	< 1.0	< 5.0 < 100	< 500 < 10000
MW-55-045	MW-55-045-Q419	N	LF		GW	12/10/2019	162		0.51 0.544	31.1 30.2	245	< 0.20	< 5.0 < 50	< 500 < 5000
MW-55-120	MW-55-120-Q419	N	LF		GW	12/10/2019	69.8		1.64 1.58	66.2 59.5	2,180	6.55	8.19 < 50	< 500 < 5000
MW-56D	MW-56D-Q419	N	LF		GW	12/10/2019	138		3.31 2.45	482 374	7,040	< 1.0	< 5.0 < 100	1110 < 10000
MW-56D	MW-921-Q419	FD	LF	MW-56D-Q419	GW	12/10/2019	140		2.96 2.48	443 380	7,200	< 1.0	< 5.0 < 200	990 < 20000
MW-56M	MW-56M-Q419	N	LF		GW	12/10/2019	445		1.94 1.68	392 362	4,330	< 1.0	< 5.0 < 100	2900 < 10000
MW-56S	MW-56S-Q419	N	LF		GW	12/10/2019	472		1.83 1.75	125 103	1,360	< 0.20	< 5.0 < 50	4000 < 5000

Preliminary Groundwater Monitoring Program 2019-12 AZ Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	*Magnesium, dissolved Results by method SW 6020A (mg/L)	*Manganese, dissolved Results by method SW 6020A (µg/L)	*Molybdenum, dissolved Results by method SW 6020A (µg/L)	*Selenium, dissolved Results by method SW 6020A (µg/L)	*Sodium, dissolved Results by method SW 6020A (mg/L)	Specific conductance Results by method EPA 120.1 (UMHOS/CM)	Sulfate Results by method EPA 300.0 (mg/L)	Total dissolved solids Results by method A2540C (mg/L)	
MW-54-085	MW-54-085-Q419	N	LF		GW	12/10/2019	91.7	810	< 50	< 50	1950	7,710	537	5,890	
MW-54-140	MW-54-140-Q419	N	LF		GW	12/10/2019	16.8	75.4	56.4	< 50	2870	10,800	526	7,650	
MW-54-195	MW-54-195-Q419	N	LF		GW	12/10/2019	4.69	323	105	< 50	4000	17,300	840	12,300	
MW-55-045	MW-55-045-Q419	N	LF		GW	12/10/2019	8.14	875	< 50	< 50	209	1,150	73.4	707	
MW-55-120	MW-55-120-Q419	N	LF		GW	12/10/2019	1.49	< 50	63.9	< 50	1620	6,920	235	4,300	
MW-56D	MW-56D-Q419	N	LF		GW	12/10/2019	96.9	947	< 50	< 50	0.25	15,000	1280	14,100	
MW-56D	MW-921-Q419	FD	LF	MW-56D-Q419	GW	12/10/2019	89	858	< 50	< 50	4290	15,300	1300	14,000	
MW-56M	MW-56M-Q419	N	LF		GW	12/10/2019	103	748	< 50	< 50	2960	9,290	820	8,170	
MW-56S	MW-56S-Q419	N	LF		GW	12/10/2019	46.4	653	< 50	< 50	2790	1210	4,280	407	3,400

Notes:

* = Samples were reported from dilution due to matrix interference. Final result will be reported after validation completed.

Analyses were performed by E Max Laboratories, Inc.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

AZ = Arizona

EPA = Environmental Protection Agency

FD = field duplicate

GW = groundwater

LF = low flow

mg/L = milligrams per liter

N = Normal

SW = solid waste

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic, dissolved Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Beryllium, dissolved Results by method SW 6020 (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Cadmium, dissolved Results by method SW 6020 (µg/L)
MW-09	MW-09-Q419	N	LF		GW	12/18/2019	120		1.2			0.76	< 2.5	
MW-10	MW-10-Q419	N	LF		GW	12/18/2019	130	< 0.50	2.6	47	< 0.50	0.67	< 2.5	< 0.50
MW-11	MW-11-Q419	N	LF		GW	12/18/2019	91		0.95			0.4	< 2.5	
MW-12	MW-12-Q419	N	LF		GW	12/17/2019	120	< 0.50	43	42	< 0.50	1.2	1.1	< 0.50
MW-13	MW-13-Q419	N	LF		GW	12/19/2019	73					0.39	< 1.0	
MW-14	MW-14-Q419	N	LF		GW	12/9/2019	67	< 0.50	0.26	180	< 2.5	0.35	< 5.0	< 0.50
MW-15	MW-15-Q419	N	LF		GW	12/12/2019	71					< 0.50	< 2.5	
MW-16	MW-16-Q419	N	LF		GW	12/9/2019	100					0.35	< 1.0	
MW-17	MW-17-Q419	N	LF		GW	12/9/2019	63					0.29	< 1.0	
MW-18	MW-18-Q419	N	LF		GW	12/9/2019	87					0.26	< 1.0	
MW-19	MW-19-Q419	N	LF		GW	12/12/2019	100					0.41	< 1.0	
MW-20-070	MW-20-070-Q419	N	LF		GW	12/13/2019	98						< 1.0	
MW-20-100	MW-20-100-Q419	N	LF		GW	12/13/2019	130						0.63	
MW-20-130	MW-20-130-Q419	N	LF		GW	12/13/2019	85		4.6				< 2.5	
MW-21	MW-21-Q419	N			GW	12/13/2019	730						2.6	
MW-22	MW-22-Q419	N	LF		GW	12/11/2019	930	< 2.5	6.4	420	< 2.5	3.1	< 5.0	< 2.5
MW-22	MW-906-Q419	FD		MW-22-Q419	GW	12/11/2019	940	< 2.5	6.7	420	< 0.50	3.7	< 5.0	< 2.5
MW-23-060	MW-23-060-Q419	N	LF		GW	12/9/2019	22		1.2			0.72	< 5.0	
MW-23-080	MW-23-080-Q419	N	LF		GW	12/9/2019	50		5.5			1.3	< 5.0	
MW-24A	MW-24A-Q419	N	LF		GW	12/3/2019		< 0.50	< 0.10	22	< 0.50			< 0.50
MW-24B	MW-24B-Q419	N	LF		GW	12/3/2019		< 2.5	3.9	72	< 0.50			< 2.5
MW-24B	MW-907-Q419	FD		MW-24B-Q419	GW	12/3/2019		< 2.5	3.8	69	< 0.50			< 0.50
MW-24BR	MW-24BR-Q419	N			GW	12/4/2019	46		0.39			3	< 1.0	
MW-25	MW-25-Q419	N	LF		GW	12/9/2019	130		0.9			0.37	< 2.5	
MW-25	MW-908-Q419	FD		MW-25-Q419	GW	12/9/2019	120		1			0.39	< 2.5	
MW-26	MW-26-Q419	N	LF		GW	12/12/2019	130	< 0.50	1	35	< 0.50	1.1	< 2.5	< 0.50
MW-26	MW-909-Q419	FD		MW-26-Q419	GW	12/12/2019	130	< 0.50	1.1	34	< 0.50	1.1	< 2.5	< 0.50
MW-27-020	MW-27-020-Q419	N	LF		GW	12/10/2019	180		4.8			0.2	< 2.5	
MW-27-060	MW-27-060-Q419	N	LF		GW	12/10/2019	180		9.6			0.21	< 1.0	
MW-27-085	MW-27-085-Q419	N	LF		GW	12/10/2019	260		< 0.10			1.3	< 2.5	
MW-28-025	MW-28-025-Q419	N	LF		GW	12/9/2019	230		0.45			0.22	< 2.5	
MW-28-090	MW-28-090-Q419	N	LF		GW	12/9/2019	240		1.7			0.95	< 2.5	
MW-29	MW-29-Q419	N	LF		GW	12/10/2019	480		11			0.42	< 5.0	
MW-30-030	MW-30-030-Q419	N	LF		GW	12/5/2019	1100		4.6			1.9	< 2.5	
MW-30-050	MW-30-050-Q419	N	LF		GW	12/5/2019	200		2.9			0.25	< 1.0	
MW-31-060	MW-31-060-Q419	N	LF		GW	12/12/2019	90		0.42			0.51	< 2.5	
MW-31-060	MW-910-Q419	FD		MW-31-060-Q419	GW	12/12/2019	89		0.36			< 0.50	< 2.5	
MW-31-135	MW-31-135-Q419	N	LF		GW	12/12/2019	35		3.6			1.7	< 2.5	
MW-32-020	MW-32-020-Q419	N	LF		GW	12/9/2019	1700		3			4.7	< 5.0	
MW-32-035	MW-32-035-Q419	N	LF		GW	12/9/2019	740		15			1	< 5.0	
MW-33-040	MW-33-040-Q419	N	LF		GW	12/5/2019	360		9.7			2.3	1.2	
MW-33-040	MW-911-Q419	FD		MW-33-040-Q419	GW	12/5/2019	370		9.6			2.6	1.2	
MW-33-090	MW-33-090-Q419	N	LF		GW	12/5/2019	160		1			1.2	< 2.5	

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total Results by method EPA 200.8 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)	Cobalt, dissolved Results by method SW 6020 (µg/L)	Copper, dissolved Results by method SW 6020 (µg/L)	Fluoride Results by method EPA 300.0 (mg/L)
MW-09	MW-09-Q419	N	LF		GW	12/18/2019	150	740	120		120			
MW-10	MW-10-Q419	N	LF		GW	12/18/2019	120	490	220		230	< 0.50		
MW-11	MW-11-Q419	N	LF		GW	12/18/2019	130	590	37		35			
MW-12	MW-12-Q419	N	LF		GW	12/17/2019	29	1,800	1600		1,800	< 0.50	< 1.0	
MW-13	MW-13-Q419	N	LF		GW	12/19/2019	130	640	24		22			
MW-14	MW-14-Q419	N	LF		GW	12/9/2019	210	820	10		8.8	< 0.50	< 1.0	
MW-15	MW-15-Q419	N	LF		GW	12/12/2019	130	550	14		14			
MW-16	MW-16-Q419	N	LF		GW	12/9/2019	23	170	11		10			
MW-17	MW-17-Q419	N	LF		GW	12/9/2019	60	160	12		11			
MW-18	MW-18-Q419	N	LF		GW	12/9/2019	84	350	19		19			
MW-19	MW-19-Q419	N	LF		GW	12/12/2019	120	500	130		120			
MW-20-070	MW-20-070-Q419	N	LF		GW	12/13/2019		400	2300		2,200			
MW-20-100	MW-20-100-Q419	N	LF		GW	12/13/2019		460	750		780			
MW-20-130	MW-20-130-Q419	N	LF		GW	12/13/2019		3,500	5900		6,000			
MW-21	MW-21-Q419	N			GW	12/13/2019		3,400	< 1.0		8.9			
MW-22	MW-22-Q419	N	LF		GW	12/11/2019	1,000	9,300	< 1.0		< 1.0	2.1		
MW-22	MW-906-Q419	FD		MW-22-Q419	GW	12/11/2019	940	9,100	< 1.0		< 1.0	2.2		
MW-23-060	MW-23-060-Q419	N	LF		GW	12/9/2019	930	5,600	41		34			
MW-23-080	MW-23-080-Q419	N	LF		GW	12/9/2019	760	5,600	< 1.0		1.1			
MW-24A	MW-24A-Q419	N	LF		GW	12/3/2019			< 0.20		1.8	< 0.50	< 1.0	
MW-24B	MW-24B-Q419	N	LF		GW	12/3/2019			230		220	< 0.50	< 1.0	
MW-24B	MW-907-Q419	FD		MW-24B-Q419	GW	12/3/2019			230		230	< 0.50	< 1.0	
MW-24BR	MW-24BR-Q419	N			GW	12/4/2019	130	4,600	< 1.0		< 1.0			
MW-25	MW-25-Q419	N	LF		GW	12/9/2019	120	400	72		69			
MW-25	MW-908-Q419	FD		MW-25-Q419	GW	12/9/2019	130	390	74		71			
MW-26	MW-26-Q419	N	LF		GW	12/12/2019	160	790	2300		2,300	< 0.50	< 1.0	
MW-26	MW-909-Q419	FD		MW-26-Q419	GW	12/12/2019	150	800	2300		2,400	< 0.50	< 1.0	
MW-27-020	MW-27-020-Q419	N	LF		GW	12/10/2019	95	110	< 0.20		1.1			
MW-27-060	MW-27-060-Q419	N	LF		GW	12/10/2019	90	90	< 0.20		< 1.0			0.65
MW-27-085	MW-27-085-Q419	N	LF		GW	12/10/2019	260	2,800	< 0.20		< 1.0			2.6
MW-28-025	MW-28-025-Q419	N	LF		GW	12/9/2019	100	100	< 0.20		< 1.0			
MW-28-090	MW-28-090-Q419	N	LF		GW	12/9/2019	230	2,000	< 0.20		< 1.0			2.1
MW-29	MW-29-Q419	N	LF		GW	12/10/2019	85	270	< 0.20		< 1.0			
MW-30-030	MW-30-030-Q419	N	LF		GW	12/5/2019	39	940	< 1.0		< 1.0			
MW-30-050	MW-30-050-Q419	N	LF		GW	12/5/2019	92	89	< 0.20		< 1.0			
MW-31-060	MW-31-060-Q419	N	LF		GW	12/12/2019	150	880	370		370			
MW-31-060	MW-910-Q419	FD		MW-31-060-Q419	GW	12/12/2019	120	870	370		360			
MW-31-135	MW-31-135-Q419	N	LF		GW	12/12/2019	350	3,900	13		14			
MW-32-020	MW-32-020-Q419	N	LF		GW	12/9/2019	390	6,000	< 1.0		< 1.0			
MW-32-035	MW-32-035-Q419	N	LF		GW	12/9/2019	380	2,500	< 1.0		< 1.0			
MW-33-040	MW-33-040-Q419	N	LF		GW	12/5/2019	46	3,500	< 1.0		< 1.0			13
MW-33-040	MW-911-Q419	FD		MW-33-040-Q419	GW	12/5/2019	49	3,500	< 1.0		< 1.0			13
MW-33-090	MW-33-090-Q419	N	LF		GW	12/5/2019	280	2,600	2.7		3.8			2.2

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Iron, dissolved Results by method SW 6010B (µg/L)	Lead, dissolved Results by method SW 6020 (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)	Nickel, dissolved Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)
MW-09	MW-09-Q419	N	LF		GW	12/18/2019	< 100		41	1.7		3		12
MW-10	MW-10-Q419	N	LF		GW	12/18/2019	< 20	< 1.0	20	0.87	< 0.20	27		11
MW-11	MW-11-Q419	N	LF		GW	12/18/2019	81		24	3.8		5.1		4.9
MW-12	MW-12-Q419	N	LF		GW	12/17/2019	68	< 5.0	6.1	1.8	< 0.20	11	< 1.0	14
MW-13	MW-13-Q419	N	LF		GW	12/19/2019	40		18	0.75		10		
MW-14	MW-14-Q419	N	LF		GW	12/9/2019	140	< 1.0	38	3.4	< 0.20	13	3.4	3.3
MW-15	MW-15-Q419	N	LF		GW	12/12/2019	< 100		38	< 0.50		4.9		
MW-16	MW-16-Q419	N	LF		GW	12/9/2019	22		5.1	< 0.50		14		
MW-17	MW-17-Q419	N	LF		GW	12/9/2019	31		10	< 0.50		13		
MW-18	MW-18-Q419	N	LF		GW	12/9/2019	49		14	1.1		6.4		
MW-19	MW-19-Q419	N	LF		GW	12/12/2019	130		21	1.7		5.6		
MW-20-070	MW-20-070-Q419	N	LF		GW	12/13/2019			19	0.57		33		11
MW-20-100	MW-20-100-Q419	N	LF		GW	12/13/2019			20	1.7		4.7		6.7
MW-20-130	MW-20-130-Q419	N	LF		GW	12/13/2019			25	0.73		37		13
MW-21	MW-21-Q419	N			GW	12/13/2019			95	390		64		0.12
MW-22	MW-22-Q419	N	LF		GW	12/11/2019	21,000	< 5.0	350	5,600		28		
MW-22	MW-906-Q419	FD		MW-22-Q419	GW	12/11/2019	21,000	< 5.0	390	6,100		29		
MW-23-060	MW-23-060-Q419	N	LF		GW	12/9/2019	< 100		4	1.1		22		
MW-23-080	MW-23-080-Q419	N	LF		GW	12/9/2019	59		0.38	0.91		47		
MW-24A	MW-24A-Q419	N	LF		GW	12/3/2019		< 1.0		6.9	< 0.20	120	< 1.0	0.074
MW-24B	MW-24B-Q419	N	LF		GW	12/3/2019		< 5.0		110	< 0.20	57	< 1.0	1.1
MW-24B	MW-907-Q419	FD		MW-24B-Q419	GW	12/3/2019		< 5.0		< 0.50	< 0.20	57	< 1.0	1.2
MW-24BR	MW-24BR-Q419	N			GW	12/4/2019	140		3.7	79		54		< 0.050
MW-25	MW-25-Q419	N	LF		GW	12/9/2019	46		27	2.1		6.3		11
MW-25	MW-908-Q419	FD		MW-25-Q419	GW	12/9/2019	130		29	2		6.5		11
MW-26	MW-26-Q419	N	LF		GW	12/12/2019	24	< 1.0	42	< 0.50		31	< 1.0	19
MW-26	MW-909-Q419	FD		MW-26-Q419	GW	12/12/2019	28	< 1.0	40	< 0.50		31	< 1.0	19
MW-27-020	MW-27-020-Q419	N	LF		GW	12/10/2019	2,900		35	42		5		0.084
MW-27-060	MW-27-060-Q419	N	LF		GW	12/10/2019	560		27	280		3.9		< 0.050
MW-27-085	MW-27-085-Q419	N	LF		GW	12/10/2019	140		65	98		19		< 0.050
MW-28-025	MW-28-025-Q419	N	LF		GW	12/9/2019	30		38	7.4		4		< 0.050
MW-28-090	MW-28-090-Q419	N	LF		GW	12/9/2019	510		53	100		22		< 0.050
MW-29	MW-29-Q419	N	LF		GW	12/10/2019	1,200		35	200		8.9		< 0.050
MW-30-030	MW-30-030-Q419	N	LF		GW	12/5/2019	560		35	150		56		0.1
MW-30-050	MW-30-050-Q419	N	LF		GW	12/5/2019	68		22	210		4.4		< 0.050
MW-31-060	MW-31-060-Q419	N	LF		GW	12/12/2019	< 100		24	< 0.50		15		3.5
MW-31-060	MW-910-Q419	FD		MW-31-060-Q419	GW	12/12/2019	29		23	< 0.50		14		3.3
MW-31-135	MW-31-135-Q419	N	LF		GW	12/12/2019	< 100		27	1.8		25		
MW-32-020	MW-32-020-Q419	N	LF		GW	12/9/2019	5,700		380	180		120		
MW-32-035	MW-32-035-Q419	N	LF		GW	12/9/2019	13,000		270	820		12		0.051
MW-33-040	MW-33-040-Q419	N	LF		GW	12/5/2019	< 100		81	5.3		220		0.28
MW-33-040	MW-911-Q419	FD		MW-33-040-Q419	GW	12/5/2019	< 100		81	2.7		240		0.3
MW-33-090	MW-33-090-Q419	N	LF		GW	12/5/2019	< 100		28	7.5		8.3		1.1

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Potassium, dissolved Results by method SW 6010B (mg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)	Silver, dissolved Results by method SW 6020 (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Specific conductance Results by method EPA 120.1 (µS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
MW-09	MW-09-Q419	N	LF		GW	12/18/2019		4.9		390	2,700	220		1,800
MW-10	MW-10-Q419	N	LF		GW	12/18/2019		6.2	< 0.50	290	2,200	250	< 0.50	1,400
MW-11	MW-11-Q419	N	LF		GW	12/18/2019		4.1		280	2,300	180		1,400
MW-12	MW-12-Q419	N	LF		GW	12/17/2019		24	< 0.50	1,800	6,600	460	< 2.5	3,900
MW-13	MW-13-Q419	N	LF		GW	12/19/2019		2.9		340	2,400	150		1,500
MW-14	MW-14-Q419	N	LF		GW	12/9/2019		1.8	< 0.50	410	2,800	130	< 0.50	1,900
MW-15	MW-15-Q419	N	LF		GW	12/12/2019		3.5		220	2,000	160		1,300
MW-16	MW-16-Q419	N	LF		GW	12/9/2019		2.1		190	1,000	140		640
MW-17	MW-17-Q419	N	LF		GW	12/9/2019		7		190	1,200	290		780
MW-18	MW-18-Q419	N	LF		GW	12/9/2019		3.7		180	1,500	98		850
MW-19	MW-19-Q419	N	LF		GW	12/12/2019		3.4		280	2,000	160		1,300
MW-20-070	MW-20-070-Q419	N	LF		GW	12/13/2019	5.7	6.9			2,100	280		1,300
MW-20-100	MW-20-100-Q419	N	LF		GW	12/13/2019	6.8	5.6			2,200	320		1,300
MW-20-130	MW-20-130-Q419	N	LF		GW	12/13/2019	29	25		3,100	12,000	990		7,900
MW-21	MW-21-Q419	N			GW	12/13/2019		8.8			14,000	1,800		9,600
MW-22	MW-22-Q419	N	LF		GW	12/11/2019		< 2.5	< 2.5	7,600	25,000	2,000	< 2.5	19,000
MW-22	MW-906-Q419	FD		MW-22-Q419	GW	12/11/2019		< 2.5	< 2.5	7,200	24,000	1,800	< 2.5	18,000
MW-23-060	MW-23-060-Q419	N	LF		GW	12/9/2019		5.1		3,100	17,000	670		13,000
MW-23-080	MW-23-080-Q419	N	LF		GW	12/9/2019		5.1		3,100	17,000	1,000		13,000
MW-24A	MW-24A-Q419	N	LF		GW	12/3/2019		< 0.50	< 0.50		1,500		< 0.50	
MW-24B	MW-24B-Q419	N	LF		GW	12/3/2019		1.5	< 2.5		20,000		< 2.5	
MW-24B	MW-907-Q419	FD		MW-24B-Q419	GW	12/3/2019		1.8	< 0.50		20,000		< 2.5	
MW-24BR	MW-24BR-Q419	N			GW	12/4/2019		< 0.50		3,300	14,000	460		8,900
MW-25	MW-25-Q419	N	LF		GW	12/9/2019	8.2	7.4		220	1,900	210		1,300
MW-25	MW-908-Q419	FD		MW-25-Q419	GW	12/9/2019	8.8	7.5		240	1,900	210		1,200
MW-26	MW-26-Q419	N	LF		GW	12/12/2019	12	35	< 0.50	560	3,300	470	< 0.50	2,300
MW-26	MW-909-Q419	FD		MW-26-Q419	GW	12/12/2019	9.3	35	< 0.50	440	3,400	470	< 0.50	2,300
MW-27-020	MW-27-020-Q419	N	LF		GW	12/10/2019		2.3		94	1,100	250		740
MW-27-060	MW-27-060-Q419	N	LF		GW	12/10/2019		< 0.50		88	970	220		670
MW-27-085	MW-27-085-Q419	N	LF		GW	12/10/2019		< 0.50		1,600	9,600	730		6,400
MW-28-025	MW-28-025-Q419	N	LF		GW	12/9/2019		1.7		87	1,200	260		800
MW-28-090	MW-28-090-Q419	N	LF		GW	12/9/2019		< 0.50		1,300	7,600	620		4,500
MW-29	MW-29-Q419	N	LF		GW	12/10/2019		< 0.50		280	1,900	170		1,200
MW-30-030	MW-30-030-Q419	N	LF		GW	12/5/2019		1.3		1,600	7,100	1,300		4,800
MW-30-050	MW-30-050-Q419	N	LF		GW	12/5/2019		< 0.50		100	1,000	200		660
MW-31-060	MW-31-060-Q419	N	LF		GW	12/12/2019	7.2	2.7		470	3,200	220		1,900
MW-31-060	MW-910-Q419	FD		MW-31-060-Q419	GW	12/12/2019	7	2.7		470	3,100	220		1,900
MW-31-135	MW-31-135-Q419	N	LF		GW	12/12/2019		0.73		3,100	11,000	500		7,900
MW-32-020	MW-32-020-Q419	N	LF		GW	12/9/2019		2		4,700	23,000	4,100		16,000
MW-32-035	MW-32-035-Q419	N	LF		GW	12/9/2019	16	< 0.50		1,400	9,300	740		5,700
MW-33-040	MW-33-040-Q419	N	LF		GW	12/5/2019		0.85		2,800	14,000	1,400		8,800
MW-33-040	MW-911-Q419	FD		MW-33-040-Q419	GW	12/5/2019		0.86		3,100	14,000	1,400		8,600
MW-33-090	MW-33-090-Q419	N	LF		GW	12/5/2019		< 0.50		1,800	9,500	600		6,000

Preliminary Groundwater Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Vanadium, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Zinc, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Deuterium Results by method CFIRM (0/00)*	Oxygen 18 Results by method CFIRM (0/00)*
MW-09	MW-09-Q419	N	LF		GW	12/18/2019				
MW-10	MW-10-Q419	N	LF		GW	12/18/2019	16	< 10		
MW-11	MW-11-Q419	N	LF		GW	12/18/2019				
MW-12	MW-12-Q419	N	LF		GW	12/17/2019	18	< 10		
MW-13	MW-13-Q419	N	LF		GW	12/19/2019				
MW-14	MW-14-Q419	N	LF		GW	12/9/2019	1.8	< 10		
MW-15	MW-15-Q419	N	LF		GW	12/12/2019				
MW-16	MW-16-Q419	N	LF		GW	12/9/2019				
MW-17	MW-17-Q419	N	LF		GW	12/9/2019				
MW-18	MW-18-Q419	N	LF		GW	12/9/2019				
MW-19	MW-19-Q419	N	LF		GW	12/12/2019				
MW-20-070	MW-20-070-Q419	N	LF		GW	12/13/2019			59.86	8.79
MW-20-100	MW-20-100-Q419	N	LF		GW	12/13/2019			64.58	9.87
MW-20-130	MW-20-130-Q419	N	LF		GW	12/13/2019			59.67	7.87
MW-21	MW-21-Q419	N			GW	12/13/2019			61.95	8.73
MW-22	MW-22-Q419	N	LF		GW	12/11/2019	1.4	< 50	83.59	10.26
MW-22	MW-906-Q419	FD		MW-22-Q419	GW	12/11/2019	1.4	< 50	83.46	10.09
MW-23-060	MW-23-060-Q419	N	LF		GW	12/9/2019				
MW-23-080	MW-23-080-Q419	N	LF		GW	12/9/2019				
MW-24A	MW-24A-Q419	N	LF		GW	12/3/2019	< 1.0	< 10		
MW-24B	MW-24B-Q419	N	LF		GW	12/3/2019	4.1	< 10		
MW-24B	MW-907-Q419	FD		MW-24B-Q419	GW	12/3/2019	3.8	< 10		
MW-24BR	MW-24BR-Q419	N			GW	12/4/2019				
MW-25	MW-25-Q419	N	LF		GW	12/9/2019			65.1	8.65
MW-25	MW-908-Q419	FD		MW-25-Q419	GW	12/9/2019			65.08	8.62
MW-26	MW-26-Q419	N	LF		GW	12/12/2019	7.3	< 10	62.55	8.51
MW-26	MW-909-Q419	FD		MW-26-Q419	GW	12/12/2019	7.1	< 10	62.71	8.57
MW-27-020	MW-27-020-Q419	N	LF		GW	12/10/2019				
MW-27-060	MW-27-060-Q419	N	LF		GW	12/10/2019				
MW-27-085	MW-27-085-Q419	N	LF		GW	12/10/2019				
MW-28-025	MW-28-025-Q419	N	LF		GW	12/9/2019				
MW-28-090	MW-28-090-Q419	N	LF		GW	12/9/2019				
MW-29	MW-29-Q419	N	LF		GW	12/10/2019				
MW-30-030	MW-30-030-Q419	N	LF		GW	12/5/2019				
MW-30-050	MW-30-050-Q419	N	LF		GW	12/5/2019			98.8	12.28
MW-31-060	MW-31-060-Q419	N	LF		GW	12/12/2019			66.19	8.66
MW-31-060	MW-910-Q419	FD		MW-31-060-Q419	GW	12/12/2019			66.28	8.65
MW-31-135	MW-31-135-Q419	N	LF		GW	12/12/2019			75.95	9.43
MW-32-020	MW-32-020-Q419	N	LF		GW	12/9/2019				
MW-32-035	MW-32-035-Q419	N	LF		GW	12/9/2019			87.84	11.01
MW-33-040	MW-33-040-Q419	N	LF		GW	12/5/2019			70.69	9.11
MW-33-040	MW-911-Q419	FD		MW-33-040-Q419	GW	12/5/2019			71.71	9.12
MW-33-090	MW-33-090-Q419	N	LF		GW	12/5/2019			73.6	9.37

Preliminary Groundwater Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic, dissolved Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Beryllium, dissolved Results by method SW 6020 (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Cadmium, dissolved Results by method SW 6020 (µg/L)
MW-33-090	MW-912-Q419	FD		MW-33-090-Q419	GW	12/5/2019	160		1			1.3	< 2.5	
MW-33-150	MW-33-150-Q419	N	LF		GW	12/5/2019	59		1			1.3	< 2.5	
MW-33-150	MW-913-Q419	FD		MW-33-150-Q419	GW	12/5/2019	60		1			1.2	< 2.5	
MW-33-210	MW-33-210-Q419	N	LF		GW	12/5/2019	55		1.2			4	< 2.5	
MW-33-210	MW-914-Q419	FD		MW-33-210-Q419	GW	12/5/2019	54		1.2			2.2	< 2.5	
MW-34-055	MW-34-055-Q419	N	LF		GW	12/10/2019	160		2.8			0.2	< 1.0	
MW-34-055	MW-915-Q419	FD		MW-34-055-Q419	GW	12/10/2019	150		2.9			0.17	< 1.0	
MW-34-080	MW-34-080-Q419	N	LF		GW	12/10/2019	290		< 0.10			1.2	< 2.5	
MW-34-080	MW-916-Q419	FD		MW-34-080-Q419	GW	12/10/2019	290		< 0.10			1.2	< 2.5	
MW-34-100	MW-34-100-Q419	N	LF		GW	12/10/2019	150		1.6			2.3	< 1.0	
MW-34-100	MW-917-Q419	FD		MW-34-100-Q419	GW	12/10/2019	160		1.6			2.4	< 1.0	
MW-35-060	MW-35-060-Q419	N	LF		GW	12/13/2019	85	< 0.50	< 0.10	69	< 0.50	0.76	< 2.5	< 0.50
MW-35-135	MW-35-135-Q419	N	LF		GW	12/13/2019	48	< 2.5	0.95	40	< 0.50	1	< 2.5	< 0.50
MW-35-135	MW-918-Q419	FD		MW-35-135-Q419	GW	12/13/2019	47	< 2.5	0.89	40	< 0.50	1.1	< 2.5	< 0.50
MW-36-020	MW-36-020-Q419	N	LF		GW	12/4/2019	790		< 0.10			1.5	< 1.0	
MW-36-040	MW-36-040-Q419	N	LF		GW	12/4/2019	270		4.5			0.25	< 1.0	
MW-36-050	MW-36-050-Q419	N	LF		GW	12/4/2019	190		5.2			0.18	< 0.50	
MW-36-070	MW-36-070-Q419	N	LF		GW	12/4/2019	160		2			0.19	< 0.50	
MW-36-090	MW-36-090-Q419	N	LF		GW	12/4/2019	290		2.1			0.74	< 2.5	
MW-36-100	MW-36-100-Q419	N	LF		GW	12/4/2019	270		0.81			1.4	< 2.5	
MW-37D	MW-37D-Q419	N	LF		GW	12/19/2019	36					1.6	< 2.5	
MW-37S	MW-37S-Q419	N	LF		GW	12/19/2019	47		< 0.10			0.78	< 2.5	
MW-38D	MW-38D-Q419	N	LF		GW	12/18/2019	28		1.7			2.9	< 2.5	
MW-38S	MW-38S-Q419	N	LF		GW	12/18/2019	150		6.6			0.62	< 1.0	
MW-39-040	MW-39-040-Q419	N	LF		GW	12/5/2019			16					
MW-39-050	MW-39-050-Q419	N	LF		GW	12/5/2019	190		1.7			0.2	< 1.0	
MW-39-060	MW-39-060-Q419	N	LF		GW	12/5/2019	230		2.4			0.24	< 2.5	
MW-39-070	MW-39-070-Q419	N	LF		GW	12/5/2019	200					0.33	< 1.0	
MW-39-080	MW-39-080-Q419	N	LF		GW	12/5/2019	280					0.74	< 1.0	
MW-39-100	MW-39-100-Q419	N	LF		GW	12/5/2019	260		2.2			1.9	< 5.0	
MW-40D	MW-40D-Q419	N	LF		GW	12/11/2019	50		4.8			1.9	< 2.5	
MW-40S	MW-40S-Q419	N	H		GW	12/11/2019			2.4					
MW-41D	MW-41D-Q419	N	LF		GW	12/17/2019	39		< 0.50			2.4	< 2.5	
MW-41M	MW-41M-Q419	N	LF		GW	12/17/2019	39		2.4			2	< 2.5	
MW-41S	MW-41S-Q419	N	LF		GW	12/17/2019	51		< 0.10			0.85	< 2.5	
MW-42-030	MW-42-030-Q419	N	LF		GW	12/11/2019			1.1					
MW-42-055	MW-42-055-Q419	N	LF		GW	12/11/2019	190		22			0.17	< 1.0	
MW-42-065	MW-42-065-Q419	N	LF		GW	12/11/2019	300		8.2			0.43	< 2.5	
MW-43-025	MW-43-025-Q419	N	LF		GW	12/12/2019	310		22			0.16	< 2.5	
MW-43-075	MW-43-075-Q419	N	LF		GW	12/12/2019	440		12			1.2	< 2.5	
MW-43-090	MW-43-090-Q419	N	LF		GW	12/12/2019	170		3.1			1.7	< 2.5	
MW-44-070	MW-44-070-Q419	N	LF		GW	12/11/2019	170		3.4			0.16	< 1.0	
MW-44-115	MW-44-115-Q419	N	LF		GW	12/11/2019	110		5.6			2.2	< 1.0	

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total Results by method EPA 200.8 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)	Cobalt, dissolved Results by method SW 6020 (µg/L)	Copper, dissolved Results by method SW 6020 (µg/L)	Fluoride Results by method EPA 300.0 (mg/L)
MW-33-090	MW-912-Q419	FD		MW-33-090-Q419	GW	12/5/2019	270	2,600	2.8		3.9			2.1
MW-33-150	MW-33-150-Q419	N	LF		GW	12/5/2019	380	4,600	2		7.7			2.8
MW-33-150	MW-913-Q419	FD		MW-33-150-Q419	GW	12/5/2019	370	4,500	1.9		7.6			2.7
MW-33-210	MW-33-210-Q419	N	LF		GW	12/5/2019	540	6,200	13		15			2.4
MW-33-210	MW-914-Q419	FD		MW-33-210-Q419	GW	12/5/2019	580	6,200	13		15			2.5
MW-34-055	MW-34-055-Q419	N	LF		GW	12/10/2019	77	84	< 0.20		< 1.0			
MW-34-055	MW-915-Q419	FD		MW-34-055-Q419	GW	12/10/2019	71	83	< 0.20		< 1.0			
MW-34-080	MW-34-080-Q419	N	LF		GW	12/10/2019	290	2,400	< 0.20		< 1.0			
MW-34-080	MW-916-Q419	FD		MW-34-080-Q419	GW	12/10/2019	290	2,300	< 0.20		< 1.0			
MW-34-100	MW-34-100-Q419	N	LF		GW	12/10/2019	180	4,000	< 1.0		1.6			
MW-34-100	MW-917-Q419	FD		MW-34-100-Q419	GW	12/10/2019	180	4,000	< 1.0		1.9			
MW-35-060	MW-35-060-Q419	N	LF		GW	12/13/2019	200	1,800	24		21	< 0.50	< 1.0	
MW-35-135	MW-35-135-Q419	N	LF		GW	12/13/2019	290	3,200	28		25	< 0.50	< 1.0	
MW-35-135	MW-918-Q419	FD		MW-35-135-Q419	GW	12/13/2019	320	3,300	28		24	< 0.50	< 1.0	
MW-36-020	MW-36-020-Q419	N	LF		GW	12/4/2019	210	930	< 0.20		< 1.0			
MW-36-040	MW-36-040-Q419	N	LF		GW	12/4/2019	61	86	< 0.20		< 1.0			
MW-36-050	MW-36-050-Q419	N	LF		GW	12/4/2019	84	88	< 0.20		< 1.0			
MW-36-070	MW-36-070-Q419	N	LF		GW	12/4/2019	89	95	< 0.20		< 1.0			
MW-36-090	MW-36-090-Q419	N	LF		GW	12/4/2019	200	1,300	< 0.20		< 1.0			
MW-36-100	MW-36-100-Q419	N	LF		GW	12/4/2019	210	2,000	7.5		9.8			
MW-37D	MW-37D-Q419	N	LF		GW	12/19/2019	270	4,000	4.8		4.5			
MW-37S	MW-37S-Q419	N	LF		GW	12/19/2019	230	2,100	12		11			
MW-38D	MW-38D-Q419	N	LF		GW	12/18/2019	380	7,600	19		21			
MW-38S	MW-38S-Q419	N	LF		GW	12/18/2019	20	290	4.7		4.5			
MW-39-040	MW-39-040-Q419	N	LF		GW	12/5/2019			< 0.20		< 1.0			
MW-39-050	MW-39-050-Q419	N	LF		GW	12/5/2019	81	89	< 0.20		< 1.0			
MW-39-060	MW-39-060-Q419	N	LF		GW	12/5/2019	60	92	< 0.20		< 1.0			
MW-39-070	MW-39-070-Q419	N	LF		GW	12/5/2019	59	360	< 0.20		< 1.0			
MW-39-080	MW-39-080-Q419	N	LF		GW	12/5/2019	120	1,300	0.52		2.5			
MW-39-100	MW-39-100-Q419	N	LF		GW	12/5/2019	300	3,700	87		82			
MW-40D	MW-40D-Q419	N	LF		GW	12/11/2019	390	5,200	150		130			
MW-40S	MW-40S-Q419	N	H		GW	12/11/2019			17		17			
MW-41D	MW-41D-Q419	N	LF		GW	12/17/2019	400	7,300	< 1.0		1.8			
MW-41M	MW-41M-Q419	N	LF		GW	12/17/2019	440	4,700	9.6		11			
MW-41S	MW-41S-Q419	N	LF		GW	12/17/2019	160	2,000	7.2		6.8			
MW-42-030	MW-42-030-Q419	N	LF		GW	12/11/2019			< 1.0		< 1.0			
MW-42-055	MW-42-055-Q419	N	LF		GW	12/11/2019	67	80	< 0.20		< 1.0			
MW-42-065	MW-42-065-Q419	N	LF		GW	12/11/2019	100	660	< 0.20		< 1.0			
MW-43-025	MW-43-025-Q419	N	LF		GW	12/12/2019	130	140	< 0.20		1.9			
MW-43-075	MW-43-075-Q419	N	LF		GW	12/12/2019	200	3,500	< 1.0		< 1.0			
MW-43-090	MW-43-090-Q419	N	LF		GW	12/12/2019	300	5,600	< 1.0		< 1.0			
MW-44-070	MW-44-070-Q419	N	LF		GW	12/11/2019	70	120	< 0.20		< 1.0			
MW-44-115	MW-44-115-Q419	N	LF		GW	12/11/2019	120	3,100	6.7		7.3			

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Iron, dissolved Results by method SW 6010B (µg/L)	Lead, dissolved Results by method SW 6020 (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)	Nickel, dissolved Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)
MW-33-090	MW-912-Q419	FD		MW-33-090-Q419	GW	12/5/2019	63		27	6.6		8.4		1.1
MW-33-150	MW-33-150-Q419	N	LF		GW	12/5/2019	< 100		44	10		48		1.8
MW-33-150	MW-913-Q419	FD		MW-33-150-Q419	GW	12/5/2019	84		43	9.7		46		1.6
MW-33-210	MW-33-210-Q419	N	LF		GW	12/5/2019	< 100		64	26		18		1.8
MW-33-210	MW-914-Q419	FD		MW-33-210-Q419	GW	12/5/2019	< 100		71	25		18		1.9
MW-34-055	MW-34-055-Q419	N	LF		GW	12/10/2019	94		27	71		4.6		< 0.050
MW-34-055	MW-915-Q419	FD		MW-34-055-Q419	GW	12/10/2019	81		22	76		5		< 0.050
MW-34-080	MW-34-080-Q419	N	LF		GW	12/10/2019	170		100	58		17		< 0.050
MW-34-080	MW-916-Q419	FD		MW-34-080-Q419	GW	12/10/2019	170		100	55		12		< 0.050
MW-34-100	MW-34-100-Q419	N	LF		GW	12/10/2019	470		26	97		47		< 0.050
MW-34-100	MW-917-Q419	FD		MW-34-100-Q419	GW	12/10/2019	65		26	96		45		< 0.050
MW-35-060	MW-35-060-Q419	N	LF		GW	12/13/2019	< 20	< 1.0	27	< 0.50	< 0.20	10	< 1.0	2.1
MW-35-135	MW-35-135-Q419	N	LF		GW	12/13/2019	< 100	< 5.0	39	0.6	< 0.20	22	3.3	2.5
MW-35-135	MW-918-Q419	FD		MW-35-135-Q419	GW	12/13/2019	< 100	< 5.0	43	< 0.50	< 0.20	23	3.4	2.2
MW-36-020	MW-36-020-Q419	N	LF		GW	12/4/2019	880		280	350		17		
MW-36-040	MW-36-040-Q419	N	LF		GW	12/4/2019	880		15	140		2.4		0.062
MW-36-050	MW-36-050-Q419	N	LF		GW	12/4/2019	180		21	200		3.6		
MW-36-070	MW-36-070-Q419	N	LF		GW	12/4/2019	39		20	200		4.6		
MW-36-090	MW-36-090-Q419	N	LF		GW	12/4/2019	30		46	67		12		
MW-36-100	MW-36-100-Q419	N	LF		GW	12/4/2019	220		54	240		18		< 0.050
MW-37D	MW-37D-Q419	N	LF		GW	12/19/2019	31		15	1.4		59		0.79
MW-37S	MW-37S-Q419	N	LF		GW	12/19/2019	84		31	1		14		
MW-38D	MW-38D-Q419	N	LF		GW	12/18/2019	240		8	47		87		< 0.050
MW-38S	MW-38S-Q419	N	LF		GW	12/18/2019	31		4.1	160		26		4.6
MW-39-040	MW-39-040-Q419	N	LF		GW	12/5/2019				73				
MW-39-050	MW-39-050-Q419	N	LF		GW	12/5/2019	< 20		21	160		4		
MW-39-060	MW-39-060-Q419	N	LF		GW	12/5/2019	29		19	100		4.7		< 0.050
MW-39-070	MW-39-070-Q419	N	LF		GW	12/5/2019	< 20		17	3.9		19		
MW-39-080	MW-39-080-Q419	N	LF		GW	12/5/2019	120		32	4.2		29		
MW-39-100	MW-39-100-Q419	N	LF		GW	12/5/2019	27		48	5.9		7.1		0.099
MW-40D	MW-40D-Q419	N	LF		GW	12/11/2019	57		34	3.2		50		3.1
MW-40S	MW-40S-Q419	N	H		GW	12/11/2019				< 0.50		19		8.9
MW-41D	MW-41D-Q419	N	LF		GW	12/17/2019	< 100		33	39		74		0.59
MW-41M	MW-41M-Q419	N	LF		GW	12/17/2019	140		39	5		24		0.58
MW-41S	MW-41S-Q419	N	LF		GW	12/17/2019	38		22	< 0.50		13		2.2
MW-42-030	MW-42-030-Q419	N	LF		GW	12/11/2019				37		24		0.075
MW-42-055	MW-42-055-Q419	N	LF		GW	12/11/2019	360		18	280		3		
MW-42-065	MW-42-065-Q419	N	LF		GW	12/11/2019	55		26	900		8.7		
MW-43-025	MW-43-025-Q419	N	LF		GW	12/12/2019	3,700		51	350		6.5		
MW-43-075	MW-43-075-Q419	N	LF		GW	12/12/2019	3,500		130	640		15		
MW-43-090	MW-43-090-Q419	N	LF		GW	12/12/2019	870		68	530		27		
MW-44-070	MW-44-070-Q419	N	LF		GW	12/11/2019	370		12	140		6.3		
MW-44-115	MW-44-115-Q419	N	LF		GW	12/11/2019	< 100		9.2	8.4		77		0.066

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Potassium, dissolved Results by method SW 6010B (mg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)	Silver, dissolved Results by method SW 6020 (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Specific conductance Results by method EPA 120.1 (µS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
MW-33-090	MW-912-Q419	FD		MW-33-090-Q419	GW	12/5/2019		< 0.50		1,800	9,400	610		5,900
MW-33-150	MW-33-150-Q419	N	LF		GW	12/5/2019		0.85		3,100	15,000	730		9,100
MW-33-150	MW-913-Q419	FD		MW-33-150-Q419	GW	12/5/2019		0.76		3,000	14,000	740		9,600
MW-33-210	MW-33-210-Q419	N	LF		GW	12/5/2019		0.88		4,200	19,000	1,100		13,000
MW-33-210	MW-914-Q419	FD		MW-33-210-Q419	GW	12/5/2019		0.87		4,100	19,000	1,100		13,000
MW-34-055	MW-34-055-Q419	N	LF		GW	12/10/2019	4.9	< 0.50		92	940	220		640
MW-34-055	MW-915-Q419	FD		MW-34-055-Q419	GW	12/10/2019	4.7	< 0.50		90	940	210		630
MW-34-080	MW-34-080-Q419	N	LF		GW	12/10/2019	17	< 2.5		1,500	8,100	610		5,300
MW-34-080	MW-916-Q419	FD		MW-34-080-Q419	GW	12/10/2019	18	< 0.50		1,600	8,100	610		5,300
MW-34-100	MW-34-100-Q419	N	LF		GW	12/10/2019	31	< 0.50		3,100	13,000	1,100		9,200
MW-34-100	MW-917-Q419	FD		MW-34-100-Q419	GW	12/10/2019	30	< 0.50		2,900	14,000	1,100		9,100
MW-35-060	MW-35-060-Q419	N	LF		GW	12/13/2019		1.1	< 0.50	1,100	6,100	290	< 0.50	3,600
MW-35-135	MW-35-135-Q419	N	LF		GW	12/13/2019		1	< 2.5	2,700	11,000	810	< 2.5	7,200
MW-35-135	MW-918-Q419	FD		MW-35-135-Q419	GW	12/13/2019		1	< 0.50	2,900	11,000	820	< 2.5	7,400
MW-36-020	MW-36-020-Q419	N	LF		GW	12/4/2019		< 0.50		1,000	5,700	1,400		4,300
MW-36-040	MW-36-040-Q419	N	LF		GW	12/4/2019		< 0.50		150	1,000	160		640
MW-36-050	MW-36-050-Q419	N	LF		GW	12/4/2019		< 0.50		77	950	200		630
MW-36-070	MW-36-070-Q419	N	LF		GW	12/4/2019		< 0.50		110	980	220		650
MW-36-090	MW-36-090-Q419	N	LF		GW	12/4/2019		< 0.50		950	5,000	460		3,300
MW-36-100	MW-36-100-Q419	N	LF		GW	12/4/2019		< 0.50		1,400	7,100	600		4,700
MW-37D	MW-37D-Q419	N	LF		GW	12/19/2019		0.67		2,900	13,000	640		8,800
MW-37S	MW-37S-Q419	N	LF		GW	12/19/2019		0.7		1,600	6,900	320		4,500
MW-38D	MW-38D-Q419	N	LF		GW	12/18/2019		< 2.5		6,000	21,000	750		13,000
MW-38S	MW-38S-Q419	N	LF		GW	12/18/2019		2.4		240	1,600	150		910
MW-39-040	MW-39-040-Q419	N	LF		GW	12/5/2019				1,100				
MW-39-050	MW-39-050-Q419	N	LF		GW	12/5/2019		< 0.50		100	990	210		670
MW-39-060	MW-39-060-Q419	N	LF		GW	12/5/2019		< 0.50		150	1,000	210		670
MW-39-070	MW-39-070-Q419	N	LF		GW	12/5/2019		< 0.50		350	2,000	260		1,200
MW-39-080	MW-39-080-Q419	N	LF		GW	12/5/2019		< 0.50		980	5,300	440		3,300
MW-39-100	MW-39-100-Q419	N	LF		GW	12/5/2019		< 0.50		2,600	13,000	940		8,600
MW-40D	MW-40D-Q419	N	LF		GW	12/11/2019		2		3,800	15,000	710		11,000
MW-40S	MW-40S-Q419	N	H		GW	12/11/2019		5.8		2,000				1,300
MW-41D	MW-41D-Q419	N	LF		GW	12/17/2019		< 2.5		5,600	21,000	770		13,000
MW-41M	MW-41M-Q419	N	LF		GW	12/17/2019		0.65		3,700	14,000	560		9,200
MW-41S	MW-41S-Q419	N	LF		GW	12/17/2019		1.8		1,500	6,400	400		3,900
MW-42-030	MW-42-030-Q419	N	LF		GW	12/11/2019		< 0.50		2,900				
MW-42-055	MW-42-055-Q419	N	LF		GW	12/11/2019		< 0.50		110	940	180		630
MW-42-065	MW-42-065-Q419	N	LF		GW	12/11/2019		< 0.50		570	3,000	310		1,900
MW-43-025	MW-43-025-Q419	N	LF		GW	12/12/2019		< 0.50		140	1,500	360		1,100
MW-43-075	MW-43-075-Q419	N	LF		GW	12/12/2019		< 0.50		3,100	11,000	920		8,000
MW-43-090	MW-43-090-Q419	N	LF		GW	12/12/2019		< 0.50		4,600	16,000	930		12,000
MW-44-070	MW-44-070-Q419	N	LF		GW	12/11/2019		< 0.50		110	1,100	220		740
MW-44-115	MW-44-115-Q419	N	LF		GW	12/11/2019		< 0.50		2,900	10,000	910		7,200

Preliminary Groundwater Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Vanadium, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Zinc, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Deuterium Results by method CFIRM (0/00)*	Oxygen 18 Results by method CFIRM (0/00)*
MW-33-090	MW-912-Q419	FD		MW-33-090-Q419	GW	12/5/2019		73.92	9.43	
MW-33-150	MW-33-150-Q419	N	LF		GW	12/5/2019		75.91	9.91	
MW-33-150	MW-913-Q419	FD		MW-33-150-Q419	GW	12/5/2019		75.69	9.89	
MW-33-210	MW-33-210-Q419	N	LF		GW	12/5/2019		80.47	10.21	
MW-33-210	MW-914-Q419	FD		MW-33-210-Q419	GW	12/5/2019		81.91	10.68	
MW-34-055	MW-34-055-Q419	N	LF		GW	12/10/2019		98.06	12.28	
MW-34-055	MW-915-Q419	FD		MW-34-055-Q419	GW	12/10/2019		98.49	12.26	
MW-34-080	MW-34-080-Q419	N	LF		GW	12/10/2019		84.77	11.14	
MW-34-080	MW-916-Q419	FD		MW-34-080-Q419	GW	12/10/2019		84.25	10.75	
MW-34-100	MW-34-100-Q419	N	LF		GW	12/10/2019		84	11.06	
MW-34-100	MW-917-Q419	FD		MW-34-100-Q419	GW	12/10/2019		83.92	10.83	
MW-35-060	MW-35-060-Q419	N	LF		GW	12/13/2019	2.7	< 10	69.83	9.95
MW-35-135	MW-35-135-Q419	N	LF		GW	12/13/2019	1.4	< 10	80.4	11.58
MW-35-135	MW-918-Q419	FD		MW-35-135-Q419	GW	12/13/2019	1.4	< 10	80.1	11.38
MW-36-020	MW-36-020-Q419	N	LF		GW	12/4/2019				
MW-36-040	MW-36-040-Q419	N	LF		GW	12/4/2019				
MW-36-050	MW-36-050-Q419	N	LF		GW	12/4/2019				
MW-36-070	MW-36-070-Q419	N	LF		GW	12/4/2019				
MW-36-090	MW-36-090-Q419	N	LF		GW	12/4/2019		92.77	11.99	
MW-36-100	MW-36-100-Q419	N	LF		GW	12/4/2019		91.16	11.6	
MW-37D	MW-37D-Q419	N	LF		GW	12/19/2019				
MW-37S	MW-37S-Q419	N	LF		GW	12/19/2019				
MW-38D	MW-38D-Q419	N	LF		GW	12/18/2019				
MW-38S	MW-38S-Q419	N	LF		GW	12/18/2019				
MW-39-040	MW-39-040-Q419	N	LF		GW	12/5/2019				
MW-39-050	MW-39-050-Q419	N	LF		GW	12/5/2019				
MW-39-060	MW-39-060-Q419	N	LF		GW	12/5/2019				
MW-39-070	MW-39-070-Q419	N	LF		GW	12/5/2019		98.84	12.32	
MW-39-080	MW-39-080-Q419	N	LF		GW	12/5/2019		95.69	12.1	
MW-39-100	MW-39-100-Q419	N	LF		GW	12/5/2019		87.08	11.11	
MW-40D	MW-40D-Q419	N	LF		GW	12/11/2019				
MW-40S	MW-40S-Q419	N	H		GW	12/11/2019				
MW-41D	MW-41D-Q419	N	LF		GW	12/17/2019				
MW-41M	MW-41M-Q419	N	LF		GW	12/17/2019				
MW-41S	MW-41S-Q419	N	LF		GW	12/17/2019				
MW-42-030	MW-42-030-Q419	N	LF		GW	12/11/2019		100.8	12.28	
MW-42-055	MW-42-055-Q419	N	LF		GW	12/11/2019		102.51	12.67	
MW-42-065	MW-42-065-Q419	N	LF		GW	12/11/2019		98.94	12.41	
MW-43-025	MW-43-025-Q419	N	LF		GW	12/12/2019				
MW-43-075	MW-43-075-Q419	N	LF		GW	12/12/2019				
MW-43-090	MW-43-090-Q419	N	LF		GW	12/12/2019				
MW-44-070	MW-44-070-Q419	N	LF		GW	12/11/2019		98.84	12.43	
MW-44-115	MW-44-115-Q419	N	LF		GW	12/11/2019		82.07	10.66	

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic, dissolved Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Beryllium, dissolved Results by method SW 6020 (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Cadmium, dissolved Results by method SW 6020 (µg/L)
MW-44-125	MW-44-125-Q419	N	LF		GW	12/11/2019	70		4.9			1.9	< 1.0	
MW-46-175	MW-46-175-Q419	N	LF		GW	12/4/2019	42					2.6	< 1.0	
MW-46-205	MW-46-205-Q419	N	LF		GW	12/4/2019	48					3.9	< 1.0	
MW-47-055	MW-47-055-Q419	N	LF		GW	12/4/2019	71		0.38			0.7	< 2.5	
MW-47-115	MW-47-115-Q419	N	LF		GW	12/4/2019	56					1.4	< 2.5	
MW-48	MW-48-Q419	N	3V		GW	12/19/2019	30					1.2	< 2.5	
MW-49-135	MW-49-135-Q419	N	3V		GW	12/10/2019	61		1.6			0.91	< 2.5	
MW-49-275	MW-49-275-Q419	N	LF		GW	12/5/2019	38					3.1	< 2.5	
MW-49-365	MW-49-365-Q419	N	LF		GW	12/5/2019	44					4.7	< 2.5	
MW-50-095	MW-50-095-Q419	N	LF		GW	12/12/2019	55					0.85	< 2.5	
MW-50-200	MW-50-200-Q419	N	LF		GW	12/12/2019	34		3.3			2.5	< 2.5	
MW-50-200	MW-919-Q419	FD		MW-50-200-Q419	GW	12/12/2019	35		3.2			2.3	< 2.5	
MW-51	MW-51-Q419	N	LF		GW	12/12/2019	99		3.9			2.3	< 2.5	
MW-51	MW-920-Q419	FD		MW-51-Q419	GW	12/12/2019	93		3.9			2.1	< 2.5	
MW-52D	MW-52D-Q419	N	LF		GW	12/12/2019	62		2.5			2	< 2.5	
MW-52M	MW-52M-Q419	N	LF		GW	12/12/2019	90		1.3			1.7	< 2.5	
MW-52S	MW-52S-Q419	N	LF		GW	12/12/2019	1100		0.29			0.71	< 2.5	
MW-53D	MW-53D-Q419	N	LF		GW	12/12/2019	36		< 0.50			2.9	< 2.5	
MW-53M	MW-53M-Q419	N	LF		GW	12/12/2019	44		0.84			2.4	< 2.5	
MW-57-070	MW-57-070-Q419	N			GW	12/6/2019	72		1.1			0.25	< 2.5	
MW-57-185	MW-57-185-Q419	N			GW	12/6/2019	95		3.5			3.2	< 5.0	
MW-58BR	MW-58BR-Q419	N	LF		GW	12/13/2019	41		< 0.10			1.6	< 2.5	
MW-59-100	MW-59-100-Q419	N	LF		GW	12/13/2019	89	< 0.50	2	76	< 0.50	1.6	< 5.0	< 0.50
MW-59-100	MW-922-Q419	FD		MW-59-100-Q419	GW	12/13/2019	93	< 2.5	2.1	74	< 0.50	1.9	< 5.0	< 0.50
MW-60-125	MW-60-125-Q419	N	LF		GW	12/6/2019	69		1.6			0.87	< 5.0	
MW-60BR-245	MW-60BR-245-3V-C	N	3V		GW	12/12/2019	23		7.5			2.9	< 2.5	
MW-60BR-245	MW-60BR-245-LF_I	N	LF		GW	12/13/2019	25		8.4			2.9	< 2.5	
MW-60BR-245	MW-60BR-245-LF_S	N	LF		GW	12/13/2019	24		6.7			2.8	< 2.5	
MW-61-110	MW-61-110-Q419	N			GW	12/6/2019	45		3.7			2.1	< 5.0	
MW-62-065	MW-62-065-Q419	N	LF		GW	12/3/2019	120		1.7			0.96	< 2.5	
MW-62-110	MW-62-110-Q419	N	G		GW	12/4/2019	98		4			1.8	< 2.5	
MW-62-190	MW-62-190-Q419	N	LF		GW	12/4/2019	53		4.7			2.7	< 2.5	
MW-63-065	MW-63-065-Q419	N			GW	12/6/2019	240		< 0.10			0.84	< 2.5	
MW-64BR	MW-64BR-Q419	N	LF		GW	12/6/2019	67		3.1			1.9	< 2.5	
MW-65-160	MW-65-160-Q419	N	LF		GW	12/3/2019	120		0.97			0.99	< 2.5	
MW-65-225	MW-65-225-Q419	N	LF		GW	12/3/2019	110		2.3			1.5	< 2.5	
MW-66-165	MW-66-165-Q419	N	LF		GW	12/3/2019	110		1.3			0.77	< 2.5	
MW-66-230	MW-66-230-Q419	N	LF		GW	12/3/2019	32		8.7			3.2	< 2.5	
MW-66BR-270	MW-66BR-270-Q419	N	3V		GW	12/10/2019	39		0.11			1.7	< 5.0	
MW-67-185	MW-67-185-Q419	N	LF		GW	12/4/2019	69		0.35			0.5	5.6	
MW-67-225	MW-67-225-Q419	N	LF		GW	12/4/2019	140		1.2			1.4	2.6	
MW-67-260	MW-67-260-Q419	N	LF		GW	12/4/2019	65		7			4.5	< 2.5	
MW-68-180	MW-68-180-1219-P ¹	N			GW	12/16/2019								

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total Results by method EPA 200.8 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)	Cobalt, dissolved Results by method SW 6020 (µg/L)	Copper, dissolved Results by method SW 6020 (µg/L)	Fluoride Results by method EPA 300.0 (mg/L)
MW-44-125	MW-44-125-Q419	N	LF		GW	12/11/2019	100	4,600	2.6		3.8			
MW-46-175	MW-46-175-Q419	N	LF		GW	12/4/2019	130	5,800	5.1		6.3			
MW-46-205	MW-46-205-Q419	N	LF		GW	12/4/2019	110	6,900	< 1.0		6.2			
MW-47-055	MW-47-055-Q419	N	LF		GW	12/4/2019	210	1,300	21		18			
MW-47-115	MW-47-115-Q419	N	LF		GW	12/4/2019	400	4,500	16		22			
MW-48	MW-48-Q419	N	3V		GW	12/19/2019	360	6,000	< 1.0		< 1.0			
MW-49-135	MW-49-135-Q419	N	3V		GW	12/10/2019	330	4,100	1.7		5.3			
MW-49-275	MW-49-275-Q419	N	LF		GW	12/5/2019	260	8,500	< 1.0		31			
MW-49-365	MW-49-365-Q419	N	LF		GW	12/5/2019	370	13,000	< 1.0		< 5.0			
MW-50-095	MW-50-095-Q419	N	LF		GW	12/12/2019	140	1,700	13		14			
MW-50-200	MW-50-200-Q419	N	LF		GW	12/12/2019	540	6,600	2200		2100			
MW-50-200	MW-919-Q419	FD		MW-50-200-Q419	GW	12/12/2019	510	6,700	2200		2100			
MW-51	MW-51-Q419	N	LF		GW	12/12/2019	280	3,600	3600		3900			
MW-51	MW-920-Q419	FD		MW-51-Q419	GW	12/12/2019	280	3,500	3600		4000			
MW-52D	MW-52D-Q419	N	LF		GW	12/12/2019	200	6,800	< 1.0		< 1.0			
MW-52M	MW-52M-Q419	N	LF		GW	12/12/2019	310	5,300	< 1.0		< 1.0			
MW-52S	MW-52S-Q419	N	LF		GW	12/12/2019	390	2,700	< 0.20		< 1.0			
MW-53D	MW-53D-Q419	N	LF		GW	12/12/2019	230	8,700	< 1.0		< 1.0			
MW-53M	MW-53M-Q419	N	LF		GW	12/12/2019	370	6,600	< 1.0		< 1.0			
MW-57-070	MW-57-070-Q419	N			GW	12/6/2019	390	770	420		390			
MW-57-185	MW-57-185-Q419	N			GW	12/6/2019	460	5,900	3.7		3.4			
MW-58BR	MW-58BR-Q419	N	LF		GW	12/13/2019	560	2,700	76		70			
MW-59-100	MW-59-100-Q419	N	LF		GW	12/13/2019	840	4,500	2700		2800	< 0.50	1.7	
MW-59-100	MW-922-Q419	FD		MW-59-100-Q419	GW	12/13/2019	780	4,000	2700		2700	< 0.50	1.5	
MW-60-125	MW-60-125-Q419	N	LF		GW	12/6/2019	550	2,600	580		540			
MW-60BR-245	MW-60BR-245-3V-C	N	3V		GW	12/12/2019	420	5,600	64		52			
MW-60BR-245	MW-60BR-245-LF_I	N	LF		GW	12/13/2019	400	5,700	75		61			
MW-60BR-245	MW-60BR-245-LF_S	N	LF		GW	12/13/2019	430	5,600	86		76			
MW-61-110	MW-61-110-Q419	N			GW	12/6/2019	790	5,400	480		460			
MW-62-065	MW-62-065-Q419	N	LF		GW	12/3/2019	240	1,700	560		540			
MW-62-110	MW-62-110-Q419	N	G		GW	12/4/2019	190	3,000	0.59		< 1.0			
MW-62-190	MW-62-190-Q419	N	LF		GW	12/4/2019	380	6,100	< 1.0		< 1.0			
MW-63-065	MW-63-065-Q419	N			GW	12/6/2019	200	1,700	1.4		3			
MW-64BR	MW-64BR-Q419	N	LF		GW	12/6/2019	380	4,400	< 1.0		< 1.0			
MW-65-160	MW-65-160-Q419	N	LF		GW	12/3/2019	280	950	260		260			
MW-65-225	MW-65-225-Q419	N	LF		GW	12/3/2019	270	2,000	480		450			
MW-66-165	MW-66-165-Q419	N	LF		GW	12/3/2019	230	910	480		480			
MW-66-230	MW-66-230-Q419	N	LF		GW	12/3/2019	520	5,700	6800		6600			
MW-66BR-270	MW-66BR-270-Q419	N	3V		GW	12/10/2019	230	3,300	< 1.0		< 1.0			
MW-67-185	MW-67-185-Q419	N	LF		GW	12/4/2019	810	1,900	3100		2900			
MW-67-225	MW-67-225-Q419	N	LF		GW	12/4/2019	120	1,200	3300		3300			
MW-67-260	MW-67-260-Q419	N	LF		GW	12/4/2019	350	5,800	390		360			
MW-68-180	MW-68-180-1219-P ¹	N			GW	12/16/2019			36000		38000			

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Iron, dissolved Results by method SW 6010B (µg/L)	Lead, dissolved Results by method SW 6020 (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)	Nickel, dissolved Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)
MW-44-125	MW-44-125-Q419	N	LF		GW	12/11/2019	250		5.3	310		220		0.09
MW-46-175	MW-46-175-Q419	N	LF		GW	12/4/2019	< 100		4.2	17		180		1.1
MW-46-205	MW-46-205-Q419	N	LF		GW	12/4/2019	< 100		3.6	32		330		
MW-47-055	MW-47-055-Q419	N	LF		GW	12/4/2019	< 20		32	< 0.50		7.8		
MW-47-115	MW-47-115-Q419	N	LF		GW	12/4/2019	< 100		39	5.6		21		
MW-48	MW-48-Q419	N	3V		GW	12/19/2019	< 100		38	8.3		9.6		
MW-49-135	MW-49-135-Q419	N	3V		GW	12/10/2019	350		30	290		32		
MW-49-275	MW-49-275-Q419	N	LF		GW	12/5/2019	190		7.6	470		260		
MW-49-365	MW-49-365-Q419	N	LF		GW	12/5/2019	< 100		12	5.5		180		
MW-50-095	MW-50-095-Q419	N	LF		GW	12/12/2019	76		15	5.5		15		
MW-50-200	MW-50-200-Q419	N	LF		GW	12/12/2019	130		40	2.1		38		
MW-50-200	MW-919-Q419	FD		MW-50-200-Q419	GW	12/12/2019	< 100		38	2.2		37		
MW-51	MW-51-Q419	N	LF		GW	12/12/2019	< 100		23	0.8		45		10
MW-51	MW-920-Q419	FD		MW-51-Q419	GW	12/12/2019	< 100		23	1.8		46		9.6
MW-52D	MW-52D-Q419	N	LF		GW	12/12/2019	620		16	270		71		
MW-52M	MW-52M-Q419	N	LF		GW	12/12/2019	1,400		30	180		34		
MW-52S	MW-52S-Q419	N	LF		GW	12/12/2019	17,000		190	1,300		3.7		
MW-53D	MW-53D-Q419	N	LF		GW	12/12/2019	230		13	1,300		170		
MW-53M	MW-53M-Q419	N	LF		GW	12/12/2019	420		29	470		62		
MW-57-070	MW-57-070-Q419	N			GW	12/6/2019	110		27	2.8		4.3		10
MW-57-185	MW-57-185-Q419	N			GW	12/6/2019	< 100		< 0.50	1.6		78		0.23
MW-58BR	MW-58BR-Q419	N	LF		GW	12/13/2019	110		35	190		23		1.2
MW-59-100	MW-59-100-Q419	N	LF		GW	12/13/2019	< 100	< 5.0	29	4.8	< 0.20	5.3	< 1.0	2.4
MW-59-100	MW-922-Q419	FD		MW-59-100-Q419	GW	12/13/2019	< 100	< 5.0	29	4	< 0.20	5.1	< 1.0	2.1
MW-60-125	MW-60-125-Q419	N	LF		GW	12/6/2019	30		27	5.1		17		4.1
MW-60BR-245	MW-60BR-245-3V-C	N	3V		GW	12/12/2019	< 100		8.1	3.6		58		0.29
MW-60BR-245	MW-60BR-245-LF_I	N	LF		GW	12/13/2019	< 100		7.2	5.3		58		0.18
MW-60BR-245	MW-60BR-245-LF_S	N	LF		GW	12/13/2019	< 100		8.9	4.4		57		0.26
MW-61-110	MW-61-110-Q419	N			GW	12/6/2019	< 100		25	160		20		0.87
MW-62-065	MW-62-065-Q419	N	LF		GW	12/3/2019	35		33	< 0.50		13		4.3
MW-62-110	MW-62-110-Q419	N	G		GW	12/4/2019	45		7.9	150		37		< 0.050
MW-62-190	MW-62-190-Q419	N	LF		GW	12/4/2019	< 100		17	930		39		0.11
MW-63-065	MW-63-065-Q419	N			GW	12/6/2019	< 100		22	2.1		17		1.2
MW-64BR	MW-64BR-Q419	N	LF		GW	12/6/2019	550		18	960		61		< 1.0
MW-65-160	MW-65-160-Q419	N	LF		GW	12/3/2019	97		38	< 0.50		35		14
MW-65-225	MW-65-225-Q419	N	LF		GW	12/3/2019	51		17	< 0.50		26		9.2
MW-66-165	MW-66-165-Q419	N	LF		GW	12/3/2019	110		41	< 0.50		5.1		22
MW-66-230	MW-66-230-Q419	N	LF		GW	12/3/2019	< 100		8.4	< 0.50		78		21
MW-66BR-270	MW-66BR-270-Q419	N	3V		GW	12/10/2019	420		9.6	110		7.3		< 0.050
MW-67-185	MW-67-185-Q419	N	LF		GW	12/4/2019	850		140	30		23		76
MW-67-225	MW-67-225-Q419	N	LF		GW	12/4/2019	460		5.7	13		56		28
MW-67-260	MW-67-260-Q419	N	LF		GW	12/4/2019	< 100		5.8	19		74		0.54
MW-68-180	MW-68-180-1219-P	N			GW	12/16/2019								

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Potassium, dissolved Results by method SW 6010B (mg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)	Silver, dissolved Results by method SW 6020 (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Specific conductance Results by method EPA 120.1 (µS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
MW-44-125	MW-44-125-Q419	N	LF		GW	12/11/2019	< 0.50		3,800	14,000	780			9,900
MW-46-175	MW-46-175-Q419	N	LF		GW	12/4/2019	0.72		4,300	18,000	920			12,000
MW-46-205	MW-46-205-Q419	N	LF		GW	12/4/2019	0.98		4,900	20,000	880			12,000
MW-47-055	MW-47-055-Q419	N	LF		GW	12/4/2019	1.1		800	4,400	240			2,900
MW-47-115	MW-47-115-Q419	N	LF		GW	12/4/2019	1.1		2,900	14,000	780			10,000
MW-48	MW-48-Q419	N	3V		GW	12/19/2019	< 0.50		4,500	17,000	570			12,000
MW-49-135	MW-49-135-Q419	N	3V		GW	12/10/2019	1.2		2,600	13,000	860			9,000
MW-49-275	MW-49-275-Q419	N	LF		GW	12/5/2019	< 2.5		6,100	26,000	1,400			16,000
MW-49-365	MW-49-365-Q419	N	LF		GW	12/5/2019	< 2.5		8,700	35,000	1,400			22,000
MW-50-095	MW-50-095-Q419	N	LF		GW	12/12/2019	0.83		1,400	5,500	290			3,500
MW-50-200	MW-50-200-Q419	N	LF		GW	12/12/2019	1.8		5,500	18,000	770			13,000
MW-50-200	MW-919-Q419	FD		MW-50-200-Q419	GW	12/12/2019	1.8		5,300	18,000	780			13,000
MW-51	MW-51-Q419	N	LF		GW	12/12/2019	27		3,100	11,000	680			8,000
MW-51	MW-920-Q419	FD		MW-51-Q419	GW	12/12/2019	28		3,100	11,000	690			7,600
MW-52D	MW-52D-Q419	N	LF		GW	12/12/2019	< 0.50		6,300	19,000	930			13,000
MW-52M	MW-52M-Q419	N	LF		GW	12/12/2019	< 0.50		4,500	15,000	620			11,000
MW-52S	MW-52S-Q419	N	LF		GW	12/12/2019	< 0.50		2,200	9,500	790			6,600
MW-53D	MW-53D-Q419	N	LF		GW	12/12/2019	< 2.5		8,400	24,000	1,200			16,000
MW-53M	MW-53M-Q419	N	LF		GW	12/12/2019	< 0.50		5,300	18,000	740			13,000
MW-57-070	MW-57-070-Q419	N			GW	12/6/2019	3.4		96	2,700	80			2,100
MW-57-185	MW-57-185-Q419	N			GW	12/6/2019	< 0.50		4,000	18,000	700			12,000
MW-58BR	MW-58BR-Q419	N	LF		GW	12/13/2019	2.4		1,500	8,700	520			5,700
MW-59-100	MW-59-100-Q419	N	LF		GW	12/13/2019	2.4	< 2.5	2,800	14,000	700	< 2.5		9,800
MW-59-100	MW-922-Q419	FD		MW-59-100-Q419	GW	12/13/2019	2.4	< 2.5	2,700	13,000	660	< 2.5		8,700
MW-60-125	MW-60-125-Q419	N	LF		GW	12/6/2019	5.8		1,200	8,700	440			5,700
MW-60BR-245	MW-60BR-245-3V-C	N	3V		GW	12/12/2019	2.6		4,800	16,000	780			12,000
MW-60BR-245	MW-60BR-245-LF_I	N	LF		GW	12/13/2019	2.4		4,700	17,000	770			11,000
MW-60BR-245	MW-60BR-245-LF_S	N	LF		GW	12/13/2019	2.6		4,800	18,000	760			11,000
MW-61-110	MW-61-110-Q419	N			GW	12/6/2019	1.3		3,100	17,000	690			11,000
MW-62-065	MW-62-065-Q419	N	LF		GW	12/3/2019	3.8		1,100	6,000	420			3,900
MW-62-110	MW-62-110-Q419	N	G		GW	12/4/2019	< 0.50		2,200	9,800	540			6,300
MW-62-190	MW-62-190-Q419	N	LF		GW	12/4/2019	< 0.50		4,100	18,000	700			12,000
MW-63-065	MW-63-065-Q419	N			GW	12/6/2019	0.8		1,200	6,700	570			3,900
MW-64BR	MW-64BR-Q419	N	LF		GW	12/6/2019	< 0.50		2,700	14,000	580			9,100
MW-65-160	MW-65-160-Q419	N	LF		GW	12/3/2019	11		520	3,900	550			2,700
MW-65-225	MW-65-225-Q419	N	LF		GW	12/3/2019	8.1		1,300	7,000	600			4,400
MW-66-165	MW-66-165-Q419	N	LF		GW	12/3/2019	25		500	3,700	440			2,600
MW-66-230	MW-66-230-Q419	N	LF		GW	12/3/2019	18		4,100	17,000	1,100			12,000
MW-66BR-270	MW-66BR-270-Q419	N	3V		GW	12/10/2019	< 0.50		3,000	10,000	150			6,400
MW-67-185	MW-67-185-Q419	N	LF		GW	12/4/2019	270		590	6,800	590			5,200
MW-67-225	MW-67-225-Q419	N	LF		GW	12/4/2019	84		1,200	6,500	1,200			4,300
MW-67-260	MW-67-260-Q419	N	LF		GW	12/4/2019	1.2		3,900	17,000	760			13,000
MW-68-180	MW-68-180-1219-P	N			GW	12/16/2019								

Preliminary Groundwater Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Vanadium, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Zinc, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Deuterium Results by method CFIRM (0/00)*	Oxygen 18 Results by method CFIRM (0/00)*
MW-44-125	MW-44-125-Q419	N	LF		GW	12/11/2019		80.93	10.84	
MW-46-175	MW-46-175-Q419	N	LF		GW	12/4/2019		79.21	10.31	
MW-46-205	MW-46-205-Q419	N	LF		GW	12/4/2019				
MW-47-055	MW-47-055-Q419	N	LF		GW	12/4/2019		69.22	9	
MW-47-115	MW-47-115-Q419	N	LF		GW	12/4/2019		78.54	10.3	
MW-48	MW-48-Q419	N	3V		GW	12/19/2019				
MW-49-135	MW-49-135-Q419	N	3V		GW	12/10/2019		80.52	10.62	
MW-49-275	MW-49-275-Q419	N	LF		GW	12/5/2019		79.11	10.42	
MW-49-365	MW-49-365-Q419	N	LF		GW	12/5/2019		79	10.43	
MW-50-095	MW-50-095-Q419	N	LF		GW	12/12/2019				
MW-50-200	MW-50-200-Q419	N	LF		GW	12/12/2019				
MW-50-200	MW-919-Q419	FD		MW-50-200-Q419	GW	12/12/2019				
MW-51	MW-51-Q419	N	LF		GW	12/12/2019				
MW-51	MW-920-Q419	FD		MW-51-Q419	GW	12/12/2019				
MW-52D	MW-52D-Q419	N	LF		GW	12/12/2019				
MW-52M	MW-52M-Q419	N	LF		GW	12/12/2019				
MW-52S	MW-52S-Q419	N	LF		GW	12/12/2019				
MW-53D	MW-53D-Q419	N	LF		GW	12/12/2019				
MW-53M	MW-53M-Q419	N	LF		GW	12/12/2019				
MW-57-070	MW-57-070-Q419	N			GW	12/6/2019				
MW-57-185	MW-57-185-Q419	N			GW	12/6/2019				
MW-58BR	MW-58BR-Q419	N	LF		GW	12/13/2019				
MW-59-100	MW-59-100-Q419	N	LF		GW	12/13/2019	< 1.0	< 10		
MW-59-100	MW-922-Q419	FD		MW-59-100-Q419	GW	12/13/2019	< 1.0	< 10		
MW-60-125	MW-60-125-Q419	N	LF		GW	12/6/2019				
MW-60BR-245	MW-60BR-245-3V-C	N	3V		GW	12/12/2019				
MW-60BR-245	MW-60BR-245-LF_I	N	LF		GW	12/13/2019				
MW-60BR-245	MW-60BR-245-LF_S	N	LF		GW	12/13/2019				
MW-61-110	MW-61-110-Q419	N			GW	12/6/2019				
MW-62-065	MW-62-065-Q419	N	LF		GW	12/3/2019				
MW-62-110	MW-62-110-Q419	N	G		GW	12/4/2019				
MW-62-190	MW-62-190-Q419	N	LF		GW	12/4/2019				
MW-63-065	MW-63-065-Q419	N			GW	12/6/2019				
MW-64BR	MW-64BR-Q419	N	LF		GW	12/6/2019				
MW-65-160	MW-65-160-Q419	N	LF		GW	12/3/2019				
MW-65-225	MW-65-225-Q419	N	LF		GW	12/3/2019				
MW-66-165	MW-66-165-Q419	N	LF		GW	12/3/2019				
MW-66-230	MW-66-230-Q419	N	LF		GW	12/3/2019				
MW-66BR-270	MW-66BR-270-Q419	N	3V		GW	12/10/2019				
MW-67-185	MW-67-185-Q419	N	LF		GW	12/4/2019				
MW-67-225	MW-67-225-Q419	N	LF		GW	12/4/2019				
MW-67-260	MW-67-260-Q419	N	LF		GW	12/4/2019				
MW-68-180	MW-68-180-1219-P	N			GW	12/16/2019				

Preliminary Groundwater Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic, dissolved Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Beryllium, dissolved Results by method SW 6020 (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Cadmium, dissolved Results by method SW 6020 (µg/L)
MW-68-180	MW-68-180-1219-P1	N			GW	12/16/2019								
MW-68-180	MW-68-180-Q419	N	LF		GW	12/4/2019	99		1.7			0.66	< 10	
MW-68-240	MW-68-240-Q419	N	LF		GW	12/4/2019	61		1.8			3.1	< 2.5	
MW-68BR-280	MW-68BR-280-Q419	N	LF		GW	12/4/2019	13		< 0.50			3	< 2.5	
MW-69-195	MW-69-195-Q419	N	LF		GW	12/3/2019	180		2.5			1.3	< 2.5	
MW-70-105	MW-70-105-Q419	N	LF		GW	12/17/2019	91		3.7			0.55	< 1.0	
MW-70BR-225	MW-70BR-225-Q419	N	LF		GW	12/17/2019	56		1.8			2	< 5.0	
MW-71-035	MW-71-035-Q419	N	LF		GW	12/18/2019	190		< 0.50			2.5	< 5.0	
MW-72-080	MW-72-080-Q419	N			GW	12/6/2019	41		12			2.3	< 2.5	
MW-72BR-200	MW-72BR-200-Q419	N	LF		GW	12/6/2019	30		13			2.3	< 2.5	
MW-73-080	MW-73-080-Q419	N	LF		GW	12/6/2019	100		0.54			1.2	< 2.5	
MW-74-240	MW-74-240-Q419	N	LF		GW	12/5/2019	150		9.4			0.25	< 1.0	
OW-03D	OW-03D-Q419	N	LF		GW	12/19/2019	32					1.3	< 2.5	
OW-03M	OW-03M-Q419	N	LF		GW	12/19/2019	53					0.8	< 1.0	
OW-03S	OW-03S-Q419	N	LF		GW	12/19/2019	81					0.17	< 1.0	
PGE-07BR	PGE-07BR-Q419	N			GW	12/4/2019	< 5.0					2.8	< 10	
PGE-08	PGE-08-Q419	N	3V		GW	12/10/2019	47		3.1			3.7	< 5.0	
PM-03	PM-03-Q419	N	Tap		GW	12/16/2019	91					0.15	< 1.0	
PM-04	PM-04-Q419	N	Tap		GW	12/16/2019	64					0.21	< 1.0	
TW-01	TW-01-Q419	N	3V		GW	12/3/2019	110					1.6	< 2.5	
TW-02D	TW-02D-Q419	N	Tap		GW	12/4/2019	250					0.77	< 2.5	
TW-04	TW-04-Q419	N			GW	12/12/2019	46					3	< 5.0	
TW-05	TW-05-Q419	N			GW	12/12/2019	40					1.8	< 5.0	

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total Results by method EPA 200.8 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)	Cobalt, dissolved Results by method SW 6020 (µg/L)	Copper, dissolved Results by method SW 6020 (µg/L)	Fluoride Results by method EPA 300.0 (mg/L)
MW-68-180	MW-68-180-1219-P1	N			GW	12/16/2019		29000		32000				
MW-68-180	MW-68-180-Q419	N	LF		GW	12/4/2019	570	1,000	34000		37000			
MW-68-240	MW-68-240-Q419	N	LF		GW	12/4/2019	600	5,300	2100		1900			
MW-68BR-280	MW-68BR-280-Q419	N	LF		GW	12/4/2019	420	7,300	< 1.0		< 1.0			
MW-69-195	MW-69-195-Q419	N	LF		GW	12/3/2019	140	500	180		150			
MW-70-105	MW-70-105-Q419	N	LF		GW	12/17/2019	64	730	60		55			
MW-70BR-225	MW-70BR-225-Q419	N	LF		GW	12/17/2019	660	3,900	1300		1200			
MW-71-035	MW-71-035-Q419	N	LF		GW	12/18/2019	800	5,000	< 1.0		< 1.0			
MW-72-080	MW-72-080-Q419	N			GW	12/6/2019	390	5,300	120		110			
MW-72BR-200	MW-72BR-200-Q419	N	LF		GW	12/6/2019	280	4,600	2.4		3.5			
MW-73-080	MW-73-080-Q419	N	LF		GW	12/6/2019	430	2,700	19		19			
MW-74-240	MW-74-240-Q419	N	LF		GW	12/5/2019	7	87	< 0.20		< 1.0			
OW-03D	OW-03D-Q419	N	LF		GW	12/19/2019	200	3,000	13		12			
OW-03M	OW-03M-Q419	N	LF		GW	12/19/2019	120	1,800	18		16			
OW-03S	OW-03S-Q419	N	LF		GW	12/19/2019	59	300	29		28			
PGE-07BR	PGE-07BR-Q419	N			GW	12/4/2019	700	7,100	< 1.0		4.4			
PGE-08	PGE-08-Q419	N	3V		GW	12/10/2019	830	6,200	< 1.0		1.2			
PM-03	PM-03-Q419	N	Tap		GW	12/16/2019	89	330	10	9.5	9.6			
PM-04	PM-04-Q419	N	Tap		GW	12/16/2019	120	630	17	16	16			
TW-01	TW-01-Q419	N	3V		GW	12/3/2019	310	2,300	2200		2100			
TW-02D	TW-02D-Q419	N	Tap		GW	12/4/2019	200	1,400	2.3		52			
TW-04	TW-04-Q419	N			GW	12/12/2019	280	7,500	5.8		5.6			
TW-05	TW-05-Q419	N			GW	12/12/2019	450	5,200	18		17			

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Iron, dissolved Results by method SW 6010B (µg/L)	Lead, dissolved Results by method SW 6020 (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)	Nickel, dissolved Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)
MW-68-180	MW-68-180-1219-P1	N			GW	12/16/2019								
MW-68-180	MW-68-180-Q419	N	LF		GW	12/4/2019	160		51	2.1		40		26
MW-68-240	MW-68-240-Q419	N	LF		GW	12/4/2019	< 100		27	18		22		4.5
MW-68BR-280	MW-68BR-280-Q419	N	LF		GW	12/4/2019	< 100		6	180		12		< 0.050
MW-69-195	MW-69-195-Q419	N	LF		GW	12/3/2019	180		15	< 0.50		61		13
MW-70-105	MW-70-105-Q419	N	LF		GW	12/17/2019	< 20		6.6	13		110		1.8
MW-70BR-225	MW-70BR-225-Q419	N	LF		GW	12/17/2019	< 100		31	8.2		18		3.1
MW-71-035	MW-71-035-Q419	N	LF		GW	12/18/2019	270		77	510		15		0.051
MW-72-080	MW-72-080-Q419	N			GW	12/6/2019	150		9.4	19		72		0.9
MW-72BR-200	MW-72BR-200-Q419	N	LF		GW	12/6/2019	< 100		3	34		66		0.18
MW-73-080	MW-73-080-Q419	N	LF		GW	12/6/2019	< 100		37	12		37		4.4
MW-74-240	MW-74-240-Q419	N	LF		GW	12/5/2019	350		0.85	6.6		18		0.31
OW-03D	OW-03D-Q419	N	LF		GW	12/19/2019	< 20		20	< 0.50		22		
OW-03M	OW-03M-Q419	N	LF		GW	12/19/2019	< 20		10	< 0.50		14		
OW-03S	OW-03S-Q419	N	LF		GW	12/19/2019	82		9.6	2.7		10		
PGE-07BR	PGE-07BR-Q419	N			GW	12/4/2019	29,000		17	1900		8.5		
PGE-08	PGE-08-Q419	N	3V		GW	12/10/2019	130		20	480		100		< 0.050
PM-03	PM-03-Q419	N	Tap		GW	12/16/2019	87		19	0.74		5.8		2.8
PM-04	PM-04-Q419	N	Tap		GW	12/16/2019	26		27	< 0.50		5.3		2.2
TW-01	TW-01-Q419	N	3V		GW	12/3/2019	< 20		20	< 0.50		15		15
TW-02D	TW-02D-Q419	N	Tap		GW	12/4/2019	770		46	210		14		
TW-04	TW-04-Q419	N			GW	12/12/2019	< 100		25	82		89		
TW-05	TW-05-Q419	N			GW	12/12/2019	< 100		37	4.9		24		

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Potassium, dissolved Results by method SW 6010B (mg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)	Silver, dissolved Results by method SW 6020 (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Specific conductance Results by method EPA 120.1 (µS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
MW-68-180	MW-68-180-1219-P1	N			GW	12/16/2019								
MW-68-180	MW-68-180-Q419	N	LF		GW	12/4/2019		19		690	4,800	1,100		3,600
MW-68-240	MW-68-240-Q419	N	LF		GW	12/4/2019		4.1		3,300	16,000	880		11,000
MW-68BR-280	MW-68BR-280-Q419	N	LF		GW	12/4/2019		< 2.5		4,600	20,000	700		13,000
MW-69-195	MW-69-195-Q419	N	LF		GW	12/3/2019		9.4		500	3,000	540		1,900
MW-70-105	MW-70-105-Q419	N	LF		GW	12/17/2019		2.1		470	2,800	200		1,600
MW-70BR-225	MW-70BR-225-Q419	N	LF		GW	12/17/2019		2.5		2,700	12,000	710		7,800
MW-71-035	MW-71-035-Q419	N	LF		GW	12/18/2019		< 2.5		3,200	14,000	1,100		11,000
MW-72-080	MW-72-080-Q419	N			GW	12/6/2019		1.2		3,400	17,000	680		10,000
MW-72BR-200	MW-72BR-200-Q419	N	LF		GW	12/6/2019		< 0.50		3,100	15,000	620		9,600
MW-73-080	MW-73-080-Q419	N	LF		GW	12/6/2019		3.5		1,700	9,100	390		5,900
MW-74-240	MW-74-240-Q419	N	LF		GW	12/5/2019		< 0.50		140	700	58		510
OW-03D	OW-03D-Q419	N	LF		GW	12/19/2019		0.55		2,600	9,700	450		6,400
OW-03M	OW-03M-Q419	N	LF		GW	12/19/2019		0.71		1,500	6,400	340		3,800
OW-03S	OW-03S-Q419	N	LF		GW	12/19/2019		5.6		180	1,400	82		760
PGE-07BR	PGE-07BR-Q419	N			GW	12/4/2019		0.59		4,400	19,000	570		14,000
PGE-08	PGE-08-Q419	N	3V		GW	12/10/2019		< 0.50		3,700	20,000	1,800		15,000
PM-03	PM-03-Q419	N	Tap		GW	12/16/2019		1.7		160	1,400	63		800
PM-04	PM-04-Q419	N	Tap		GW	12/16/2019		1.3		320	2,400	160		1,500
TW-01	TW-01-Q419	N	3V		GW	12/3/2019		13		1,400	8,000	690		5,200
TW-02D	TW-02D-Q419	N	Tap		GW	12/4/2019		1.1		970	4,900	380		3,100
TW-04	TW-04-Q419	N			GW	12/12/2019		< 2.5		7,000	21,000	990		14,000
TW-05	TW-05-Q419	N			GW	12/12/2019		1.1		4,000	15,000	580		9,900

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Vanadium, dissolved Results by method SW 6020 (µg/L)	Zinc, dissolved Results by method SW 6020 (µg/L)	Deuterium Results by method CFIRM (0/00)*	Oxygen 18 Results by method CFIRM (0/00)*
MW-68-180	MW-68-180-1219-P1	N			GW	12/16/2019				
MW-68-180	MW-68-180-Q419	N	LF		GW	12/4/2019				
MW-68-240	MW-68-240-Q419	N	LF		GW	12/4/2019				
MW-68BR-280	MW-68BR-280-Q419	N	LF		GW	12/4/2019				
MW-69-195	MW-69-195-Q419	N	LF		GW	12/3/2019				
MW-70-105	MW-70-105-Q419	N	LF		GW	12/17/2019				
MW-70BR-225	MW-70BR-225-Q419	N	LF		GW	12/17/2019				
MW-71-035	MW-71-035-Q419	N	LF		GW	12/18/2019				
MW-72-080	MW-72-080-Q419	N			GW	12/6/2019				
MW-72BR-200	MW-72BR-200-Q419	N	LF		GW	12/6/2019				
MW-73-080	MW-73-080-Q419	N	LF		GW	12/6/2019				
MW-74-240	MW-74-240-Q419	N	LF		GW	12/5/2019				
OW-03D	OW-03D-Q419	N	LF		GW	12/19/2019				
OW-03M	OW-03M-Q419	N	LF		GW	12/19/2019				
OW-03S	OW-03S-Q419	N	LF		GW	12/19/2019				
PGE-07BR	PGE-07BR-Q419	N			GW	12/4/2019				
PGE-08	PGE-08-Q419	N	3V		GW	12/10/2019				
PM-03	PM-03-Q419	N	Tap		GW	12/16/2019				
PM-04	PM-04-Q419	N	Tap		GW	12/16/2019				
TW-01	TW-01-Q419	N	3V		GW	12/3/2019				
TW-02D	TW-02D-Q419	N	Tap		GW	12/4/2019				
TW-04	TW-04-Q419	N			GW	12/12/2019				
TW-05	TW-05-Q419	N			GW	12/12/2019				

Notes:

*Analyses were performed by Pace Analytical. All other samples were analyzed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

3V = three casing volumes

CFIRM = Continuous Flow Isotope Mass Spectrometry

FD = field duplicate

GW = groundwater

mg/L = milligrams per liter

R = river sample

N = Normal

SW = solid waste

SM = standard method

Preliminary Performance Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Calcium, dissolved Results by method EPA 200.7 (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total dissolved Results by method EPA 200.8 (µg/L)	Iron, dissolved Results by method EPA 200.7 (µg/L)	Magnesium, dissolved Results by method EPA 200.7 (mg/L)	Manganese, dissolved Results by method EPA 200.8 (µg/L)
PE-01	PE-01-1219	N	Tap	GW	12/4/2019	280	230	1,300	< 0.20	< 1.0	7,500	64	520
TW-03D	TW-03D-1219	N	Tap	GW	12/4/2019	150	240	2,000	480	480	< 100	38	< 0.50

Preliminary Performance Monitoring Program 2019-12 Sampling

Location ID	Sample ID	Sample Type	Sample Method	Matrix	Sample Date	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)	pH Results by method SM 4500-H+ B (PHUNITS)	Sodium, dissolved Results by method EPA 200.7 (mg/L)	Specific conductance Results by method EPA 120.1 (uS/cm)	Sulfate Results by method EPA 300.0 (mg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
PE-01	PE-01-1219	N	Tap	GW	12/4/2019	0.16	7.2	780	4,700	370	2,900
TW-03D	TW-03D-1219	N	Tap	GW	12/4/2019	2.8	7.2	1,400	7,200	500	4,300

Notes:

Analyses were performed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

GW = groundwater

mg/L = milligrams per liter

N = Normal

SM = standard method

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Aluminum Results by method SW 6010B (µg/L)	Aluminum, dissolved Results by method SW 6010B (µg/L)	Ammonia as nitrogen Results by method A4500NH (mg/L)*	Antimony Results by method SW 6020 (µg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic Results by method SW 6020 (µg/L)	Arsenic, dissolved Results by method SW 6020 (µg/L)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	120	140	68	0.11	< 0.50	< 0.50	0.5	0.38
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	85	840	< 50	0.13	< 0.50	< 0.50	< 0.10	< 0.10
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	92	130	< 50	0.07	< 0.50	< 0.50	1.9	1.9
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	75	< 50	< 50	0.14	< 0.50	< 2.5	1.1	1.2
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	47	< 250	< 250	0.05	< 2.5	< 2.5	< 0.50	< 0.50
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	44	< 250	< 250	0.11	< 2.5	< 2.5	< 0.50	< 0.50
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	65	640	< 250	0.11	< 2.5	< 2.5	< 0.50	< 0.50
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	65	810	< 250	0.18	< 2.5	< 2.5	< 0.50	< 0.50
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	89	67	< 50	0.09	< 0.50	< 0.50	0.55	0.49
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	49	< 250	< 250	0.12	< 2.5	< 2.5	2.2	< 0.50
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	70	< 250	< 250	0.11	< 2.5	< 2.5	< 0.50	< 0.50
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	40	< 250	< 250	0.11	< 2.5	< 2.5	< 0.50	< 0.50
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	1,000	< 250	< 250	2.9	< 0.50	< 0.50	6.5	4.8
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	1,000	< 250	< 250	3	< 0.50	< 2.5	5.9	4.8
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	160	51	< 50	0.15	< 0.50	< 0.50	< 0.10	< 0.10
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	48	< 250	< 250	0.07	< 2.5	< 2.5	< 0.50	< 0.50
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	47	< 250	< 250	0.07	< 2.5	< 2.5	3.8	< 0.50
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	100	200	< 50	0.09	< 0.50	< 0.50	0.92	0.85
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	91	570	< 250	0.16	< 2.5	< 2.5	4.4	< 0.50
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	79	310	< 50	0.06	< 0.50	< 0.50	0.68	0.51
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	130	< 250	< 50	0.07	< 0.50	< 0.50	4.6	4.6
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	120	< 50	< 50	0.05	< 0.50	< 0.50	1.8	1.8
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	120	< 50	< 50	0.05	< 0.50	< 0.50	1.9	1.9
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	99	< 250	< 250	0.06	< 0.50	< 0.50	3.8	4
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	1,000	74	< 50	4.8	< 0.50	< 0.50	13	13
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	80	< 50	< 50	0.19	< 0.50	< 0.50	2.1	< 0.10
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	64	< 250	< 250	0.09	< 2.5	< 2.5	1.5	1.5
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	44	< 250	< 250	0.09	< 2.5	< 2.5	2.8	< 0.50
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	90	85	< 50	0.06	< 0.50	< 0.50	0.29	0.26
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	36	< 50	< 50	0.06	< 0.50	< 0.50	3.9	4
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	42	1,400	53	0.05	< 2.5	< 2.5	5.3	3.8
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	30	< 250	< 250	0.05	< 2.5	< 2.5	5.7	5.8
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	29	< 250	< 250	0.05	< 2.5	< 2.5	5.7	6
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	84	730	< 50	0.04	< 0.50	< 0.50	1.4	1.2
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	57	1,100	< 50	0.05	< 0.50	< 0.50	0.12	< 0.10
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	58	480	< 50	0.04	< 0.50	< 0.50	3.1	2.9
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	48	720	< 50	0.05	< 0.50	< 0.50	5.6	4.8
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	47	860	< 50	0.46	< 0.50	< 0.50	5.5	4.7
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	160	230	< 50	0.05	< 0.50	< 0.50	1.1	0.73
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	60	220	< 50	0.04	< 0.50	< 0.50	6.4	6
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	45	< 250	< 250	0.06	< 2.5	< 2.5	5.3	5.3
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	280	230	< 50	0.89	< 0.50	< 0.50	1.8	1.6
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	160	< 50	< 50	0.09	< 0.50	< 0.50	< 0.10	< 0.10

Preliminary Transition Monitoring Program 2019-12 Baseline Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Barium Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Beryllium Results by method SW 6020 (µg/L)	Beryllium, dissolved Results by method SW 6020 (µg/L)	Boron Results by method SW 6010B (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Cadmium Results by method SW 6020 (µg/L)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	64	55	< 0.50	< 0.50	1,300	1.2	< 5.0	< 0.50
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	68	60	< 0.50	< 0.50	7,800	1.2	< 10	< 0.50
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	62	57	< 0.50	< 0.50	690	0.7	< 2.5	< 0.50
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	78	79	< 0.50	< 0.50	940	1	< 2.5	< 0.50
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	140	120	< 0.50	< 0.50	1,600	1.8	< 2.5	< 2.5
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	110	100	< 0.50	< 0.50	2,800	3.4	< 2.5	< 2.5
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	82	64	< 2.5	< 2.5	3,600	3.8	< 2.5	< 2.5
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	87	66	< 2.5	< 2.5	3,400	3.4	< 2.5	< 2.5
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	60	59	< 0.50	< 2.5	510	0.53	< 2.5	< 0.50
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	87	73	< 0.50	< 0.50	1,700	1.9	< 5.0	< 2.5
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	120	110	< 0.50	< 2.5	1,500	1.6	< 5.0	< 2.5
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	130	120	< 0.50	< 2.5	3,000	3.5	< 5.0	< 2.5
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	64	53	< 0.50	< 0.50	3,200	3	< 2.5	< 0.50
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	67	57	< 0.50	< 0.50	2,900	3.1	< 2.5	< 2.5
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	56	61	< 0.50	< 0.50	1,300	1.5	< 2.5	< 0.50
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	57	56	< 0.50	< 2.5	2,000	2.2	< 5.0	< 2.5
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	71	69	< 0.50	< 0.50	3,600	3.7	< 2.5	< 2.5
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	36	32	< 0.50	< 0.50	730	0.78	< 2.5	< 0.50
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	44	30	< 0.50	< 0.50	2,200	3	< 5.0	< 2.5
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	73	63	< 0.50	< 0.50	670	0.72	< 5.0	< 0.50
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	40	40	< 0.50	< 0.50	2,600	1.8	< 5.0	< 0.50
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	34	34	< 0.50	< 0.50	940	0.89	1.4	< 0.50
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	35	36	< 0.50	< 0.50	940	0.95	1.4	< 0.50
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	40	40	< 0.50	< 0.50	1,800	1.7	< 5.0	< 0.50
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	71	65	< 0.50	< 0.50	1,600	1.4	< 2.5	< 0.50
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	46	44	< 0.50	< 0.50	1,500	1.5	< 5.0	< 0.50
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	72	65	< 0.50	< 0.50	1,500	1.7	< 5.0	< 2.5
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	59	52	< 0.50	< 0.50	2,800	3.1	< 2.5	< 2.5
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	75	81	< 0.50	< 0.50	270	0.28	< 5.0	< 0.50
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	49	51	< 0.50	< 0.50	1,300	1.4	< 5.0	< 2.5
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	50	42	< 0.50	< 0.50	1,900	1.8	< 5.0	< 2.5
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	130	120	< 0.50	< 0.50	2,600	2.6	< 5.0	< 2.5
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	120	120	< 0.50	< 0.50	2,700	2.6	< 5.0	< 2.5
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	48	46	< 0.50	< 0.50	390	0.39	< 2.5	< 0.50
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	220	210	< 0.50	< 0.50	460	0.43	< 5.0	< 0.50
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	120	130	< 0.50	< 0.50	1,100	1	< 5.0	< 0.50
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	68	65	< 0.50	< 0.50	1,700	1.6	< 5.0	< 2.5
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	71	64	< 0.50	< 0.50	1,700	1.8	< 5.0	< 2.5
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	70	70	< 0.50	< 0.50	440	0.45	< 5.0	< 0.50
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	30	29	< 0.50	< 0.50	2,000	2.1	< 5.0	< 2.5
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	54	54	< 0.50	< 0.50	2,800	2.6	< 10	< 2.5
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	140	130	< 0.50	< 0.50	130	0.14	< 1.0	< 0.50
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	130	130	< 0.50	< 0.50	5,100	0.94	< 5.0	< 0.50

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Cadmium, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Calcium Results by method SW 6010B ($\mu\text{g/L}$)	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 ($\mu\text{g/L}$)	Chromium, total Results by method SW 6020 ($\mu\text{g/L}$)	Chromium, total dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Cobalt Results by method SW 6020 ($\mu\text{g/L}$)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	< 0.50	180,000	150	1,000	390	390	400	< 0.50
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	< 0.50	2,200,000	320	1,400	270	290	250	0.62
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	< 0.50	140,000	150	1,100	26	24	24	< 0.50
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	< 2.5	320,000	330	4,000	5.2	4.6	5.1	< 0.50
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	< 2.5	590,000	600	5,800	< 1.0	1.4	< 1.0	< 0.50
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	< 2.5	410,000	440	8,100	< 1.0	< 5.0	< 5.0	< 2.5
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	< 2.5	310,000	290	10,000	< 1.0	< 5.0	< 5.0	< 2.5
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	< 2.5	280,000	250	10,000	< 1.0	< 5.0	< 5.0	< 2.5
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	< 0.50	120,000	130	830	110	93	100	< 0.50
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	< 2.5	410,000	410	5,200	< 1.0	1.2	< 5.0	< 0.50
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	< 2.5	580,000	590	6,300	650	550	610	< 0.50
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	< 2.5	300,000	340	7,600	29	27	31	< 0.50
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	< 2.5	240,000	200	3,300	< 1.0	4.8	< 1.0	1
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	< 2.5	220,000	200	3,200	< 1.0	2.7	< 1.0	0.86
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	< 2.5	280,000	280	2,400	0.24	1	< 1.0	< 0.50
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	< 2.5	580,000	540	6,400	3.6	6.4	< 5.0	< 0.50
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	< 2.5	150,000	130	7,400	< 1.0	1.7	< 1.0	< 0.50
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	< 0.50	130,000	130	480	3,900	4,100	4,100	< 0.50
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	< 2.5	360,000	360	3,800	7,600	7,100	6,900	< 0.50
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	< 0.50	200,000	210	760	2,900	3,100	2,900	1.6
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	< 2.5	170,000	160	2,200	3,500	3,500	3,500	1.2
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	< 0.50	120,000	110	1,300	840	800	820	6.4
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	< 0.50	120,000	120	1,300	840	830	850	5.4
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	< 2.5	290,000	290	2,700	2,200	2,300	2,200	1.3
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	< 0.50	220,000	200	2,100	< 0.20	2.5	< 1.0	1
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	< 0.50	230,000	240	2,500	0.29	13	< 1.0	< 0.50
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	< 2.5	700,000	680	6,200	< 1.0	14	1.2	< 0.50
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	< 2.5	130,000	130	6,700	< 1.0	17	1.3	< 0.50
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	< 0.50	150,000	150	520	53	53	49	< 0.50
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	< 2.5	270,000	280	4,100	7	6.9	6	< 0.50
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	< 2.5	420,000	380	5,200	470	540	410	1.3
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	< 2.5	430,000	420	6,500	33	21	25	< 0.50
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	< 2.5	410,000	430	6,600	32	21	27	< 0.50
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	< 0.50	80,000	88	360	29	31	26	< 0.50
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	< 0.50	310,000	320	1,700	0.67	8.3	< 1.0	1.1
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	< 2.5	290,000	310	2,700	< 0.20	2.4	< 1.0	< 0.50
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	< 2.5	220,000	220	4,000	14	37	13	0.62
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	< 2.5	210,000	230	4,000	14	37	13	0.66
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	< 0.50	120,000	130	380	150	160	150	0.73
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	< 2.5	220,000	220	3,600	1,200	1,200	1,100	< 0.50
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	< 2.5	400,000	400	5,700	2,100	2,000	2,000	< 0.50
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	< 0.50	110,000	100	130	< 0.20	1.6	< 1.0	< 0.50
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	< 0.50	260,000	260	2,200	< 0.20	< 1.0	< 1.0	0.53

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Cobalt, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Copper Results by method SW 6020 ($\mu\text{g/L}$)	Copper, dissolved Results by method SW 6020 ($\mu\text{g/L}$)	Fluoride Results by method EPA 300.0 (mg/L)		Iron, dissolved Results by method SW 6010B ($\mu\text{g/L}$)	Lead Results by method SW 6020 ($\mu\text{g/L}$)	Lead, dissolved Results by method SW 6020 ($\mu\text{g/L}$)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	< 0.50	< 1.0	< 1.0	< 1.0	290	< 20	< 1.0	< 1.0
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	< 0.50	< 1.0	< 1.0	< 2.0	1,500	< 20	< 1.0	< 1.0
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	< 0.50	< 1.0	< 1.0	3.1	230	32	< 5.0	< 5.0
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	< 0.50	1	< 1.0	3	44	< 20	< 5.0	< 5.0
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	< 0.50	< 5.0	< 1.0	3.3	540	130	< 5.0	< 5.0
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	< 2.5	< 5.0	< 5.0	4.9	310	230	< 5.0	< 5.0
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	< 2.5	< 5.0	< 5.0	7.7	1,700	530	< 5.0	< 5.0
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	< 2.5	< 5.0	< 5.0	6.8	1,600	500	< 5.0	< 5.0
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	< 0.50	< 1.0	1.8	3.8	190	82	< 1.0	< 5.0
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	< 2.5	< 1.0	3.4	3.6	< 100	< 100	< 5.0	< 5.0
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	< 2.5	< 5.0	< 5.0	3.1	< 100	< 100	< 5.0	< 5.0
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	< 2.5	< 5.0	< 5.0	5.2	< 100	< 100	< 5.0	< 5.0
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	< 0.50	2.2	1	4.5	2,200	540	< 5.0	< 5.0
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	< 0.50	1.7	1.1	4.6	2,000	570	< 5.0	< 5.0
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	< 0.50	< 1.0	< 1.0	3.1	130	42	< 5.0	< 5.0
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	< 2.5	< 5.0	< 5.0	3.8	100	< 100	< 5.0	< 5.0
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	< 0.50	1.2	< 5.0	7.9	< 100	< 100	< 25	< 5.0
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	< 0.50	< 1.0	< 1.0	1.7	220	36	< 1.0	< 1.0
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	< 0.50	1.5	< 1.0	3.6	1,100	< 100	< 5.0	< 5.0
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	0.84	< 1.0	< 1.0	1.1	670	36	< 1.0	< 1.0
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	0.94	< 1.0	3.4	2.9	< 100	140	< 5.0	< 5.0
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	5.5	2.1	< 1.0	3	94	31	< 5.0	< 5.0
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	7.9	< 1.0	< 1.0	3	43	51	< 5.0	< 5.0
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	1.1	< 1.0	< 1.0	2.7	< 100	< 100	< 5.0	< 5.0
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	0.84	< 1.0	< 1.0	2.1	3,100	3,000	< 5.0	< 5.0
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	< 0.50	< 1.0	< 1.0	3.5	95	20	< 5.0	< 5.0
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	< 0.50	< 1.0	1.7	3	200	< 100	< 5.0	< 5.0
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	< 0.50	1	< 5.0	6.3	140	< 100	< 5.0	< 5.0
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	1.5	160	77	< 1.0	< 1.0
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	4.9	21	< 20	< 5.0	< 5.0
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	< 0.50	3	< 1.0	4.8	1,900	< 20	< 5.0	< 5.0
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	< 0.50	21	< 1.0	4.7	< 100	< 100	< 5.0	< 25
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	< 0.50	6.6	< 1.0	4.7	< 100	< 100	< 5.0	< 25
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	1.8	1,000	45	< 1.0	< 1.0
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	< 0.50	2.4	< 1.0	3.1	1,600	48	< 5.0	< 5.0
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	< 0.50	1.1	< 1.0	3.9	830	240	< 5.0	< 5.0
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	< 0.50	2.9	< 1.0	4.7	1,400	21	< 5.0	< 5.0
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	< 0.50	2.1	< 1.0	4.7	1,700	39	< 5.0	< 5.0
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	< 1.0	550	210	< 1.0	< 1.0
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	5.4	430	25	< 5.0	< 5.0
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	5.7	180	< 100	< 5.0	< 5.0
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	< 0.50	< 1.0	< 1.0	0.48	1,300	810	< 1.0	< 1.0
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	0.54	< 1.0	< 1.0	2.5	180	130	< 1.0	< 1.0

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Magnesium, Results by method SW 6010B (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese, Results by method SW 6020 (µg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)	Mercury, Results by method EPA 7470A (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum, Results by method SW 6020 (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	35,000	32	84	1.7	< 0.20	< 0.20	2.3	2.1
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	320,000	52	410	390	< 0.20	< 0.20	9.5	9
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	24,000	26	190	190	< 0.20	< 0.20	12	13
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	61,000	66	710	740	< 0.20	< 0.20	31	33
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	75,000	80	3000	3100	< 0.20	< 0.20	69	64
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	16,000	18	1000	1000	< 0.20	< 0.20	120	120
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	14,000	12	920	860	< 0.20	< 0.20	180	190
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	13,000	12	930	890	< 0.20	< 0.20	190	190
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	23,000	23	12	7.3	< 0.20	< 0.20	23	23
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	42,000	43	370	360	< 0.20	< 0.20	31	31
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	87,000	89	1100	1100	< 0.20	< 0.20	33	35
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	13,000	15	450	440	< 0.20	< 0.20	83	83
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	260,000	240	370	270	< 0.20	< 0.20	72	75
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	250,000	240	360	270	< 0.20	< 0.20	77	75
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	35,000	41	180	160	< 0.20	< 0.20	4	4.1
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	58,000	57	190	180	< 0.20	< 0.20	32	34
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	4,400	4.3	120	110	< 0.20	< 0.20	260	250
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	22,000	22	9.1	0.98	< 0.20	< 0.20	6.7	7.1
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	17,000	22	44	24	< 0.20	< 0.20	19	19
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	38,000	40	48	35	< 0.20	< 0.20	10	10
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	22,000	17	14	11	< 0.20	< 0.20	28	29
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	14,000	14	8.4	7.2	< 0.20	< 0.20	30	32
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	14,000	15	7.9	10	< 0.20	< 0.20	32	34
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	27,000	28	3.3	1.3	< 0.20	< 0.20	16	16
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	270,000	240	240	200	< 0.20	< 0.20	10	10
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	19,000	20	96	88	< 0.20	< 0.20	11	11
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	97,000	100	630	560	< 0.20	< 0.20	19	18
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	4,100	4.1	150	120	< 0.20	< 0.20	160	160
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	24,000	24	15	3.1	< 0.20	< 0.20	3.9	3.9
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	17,000	19	0.9	0.74	< 0.20	< 0.20	31	33
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	19,000	19	69	4.9	< 0.20	< 0.20	46	46
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	14,000	14	66	63	< 0.20	< 0.20	60	59
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	13,000	15	67	65	< 0.20	< 0.20	61	61
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	13,000	15	22	4	< 0.20	< 0.20	19	20
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	51,000	65	170	100	< 0.20	< 0.20	7	6.9
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	30,000	30	290	300	< 0.20	< 0.20	24	25
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	11,000	10	160	48	< 0.20	< 0.20	46	49
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	12,000	11	140	48	< 0.20	< 0.20	47	48
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	24,000	24	19	1.7	< 0.20	< 0.20	3.4	3
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	9,700	9.8	62	52	< 0.20	< 0.20	97	96
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	16,000	15	68	58	< 0.20	< 0.20	76	79
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	40,000	33	310	310	< 0.20	< 0.20	4.7	4.7
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	43,000	42	1600	1700	< 0.20	< 0.20	14	15

Preliminary Transition Monitoring Program 2019-12 Baseline Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Nickel, dissolved Results by method SW 6020 (µg/L)	Nickel Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)	Nitrate/Nitrite as Nitrogen Results by method SM4500-NO3F (mg/L)	Potassium Results by method SW 6010B (µg/L)	Potassium, dissolved Results by method SW 6010B (µg/L)	Selenium Results by method SW 6020 (µg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	< 1.0	< 1.0	13		14,000	13	7.2	7.5
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	< 1.0	< 1.0	6.2		19,000	17	4.8	4.6
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	2			8.6	1.7	1.7
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	2.1			18	1.2	< 2.5
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	1.3	< 1.0	0.66			34	< 2.5	< 2.5
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	< 5.0	< 5.0	< 0.050			78	< 2.5	< 2.5
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	1.4	< 5.0	0.12			81	< 2.5	< 2.5
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	< 5.0	< 5.0	0.098			75	< 2.5	< 2.5
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	< 1.0	< 1.0	2.8			8.4	2.6	2.6
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	< 1.0	< 1.0	1.6			28	< 2.5	< 2.5
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	< 1.0	< 5.0	1.9			35	< 2.5	< 2.5
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	1.1	< 5.0	0.42			60	< 2.5	< 2.5
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	5.4	2.2	0.25			57	7.6	8
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	3.8	2	0.33			60	7.8	8.2
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	< 1.0	< 1.0	0.55			15	< 0.50	< 0.50
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	1.6	< 5.0	1.6			49	< 2.5	< 2.5
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	< 1.0	< 5.0	1.1			56	0.78	< 2.5
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	11			9.2	9.7	9.9
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	3.2	1.3	11			42	23	23
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	11			14	12	12
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	3.5	< 1.0	15			20	74	79
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	15			12	30	33
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	< 1.0	< 1.0	16			12	32	33
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	3.7	2.3	8.9			27	9.5	9.8
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	2.1	< 1.0	0.12			22	1	1.1
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	6.9	< 1.0	0.8			17	< 0.50	< 0.50
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	8.8	2.6	1.4			51	0.58	0.62
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	11	< 5.0	1			63	0.64	0.55
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	3.8			10	3.2	3.3
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	0.57			21	0.62	0.63
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	9.8	< 1.0	0.56			29	< 2.5	< 2.5
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	0.32			45	< 2.5	< 2.5
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	< 1.0	< 1.0	0.31			50	< 2.5	< 2.5
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	10			7.9	5.2	5.1
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	0.99			14	0.72	0.77
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	0.36			18	0.52	0.51
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	3.5	< 1.0	0.81			31	1	0.94
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	3.8	< 1.0	0.88			33	1	1
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	7.1	3.5	17			9.9	9.4	9.6
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	3.5	< 1.0	7.4			27	6.5	6.2
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	1.7	< 1.0	3.5			39	2.9	3.1
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	< 1.0	< 1.0	0.15			5.4	< 0.50	< 0.50
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	< 1.0	< 1.0	0.2			16	< 0.50	< 0.50

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Silver, dissolved Results by method SW 6020 (µg/L)	Silver Results by method SW 6020 (µg/L)	Sodium Results by method SW 6010B (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Sulfate Results by method EPA 300.0 (mg/L)	Sulfate Results by method SW 300.0 (mg/L)	Thallium Results by method SW 6020 (µg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	< 0.50	< 0.50	690,000	520	380	< 0.50	< 0.50	2,400	
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	< 0.50	< 0.50	770,000	550	470	< 0.50	< 0.50	3,500	
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	< 0.50	< 0.50		630	220	< 2.5	< 2.5	2,300	
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	< 2.5	< 2.5		2,800	610	< 2.5	< 2.5	8,500	
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	< 2.5	< 2.5		3,700	1,100	< 2.5	< 2.5	13,000	
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	< 2.5	< 2.5		6,400	1,200	< 2.5	< 2.5	15,000	
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	< 2.5	< 2.5		7,300	1,600	< 2.5	< 2.5	17,000	
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	< 2.5	< 2.5		7,500	1,600	< 2.5	< 2.5	18,000	
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	< 0.50	< 0.50		510	190	< 0.50	< 2.5	1,900	
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	< 2.5	< 2.5		3,100	790	< 2.5	< 2.5	11,000	
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	< 2.5	< 2.5		4,100	920	< 2.5	< 2.5	14,000	
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	< 2.5	< 2.5		6,100	920	< 2.5	< 2.5	13,000	
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	< 0.50	< 2.5		3,000	1,500	< 2.5	< 2.5	9,500	
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	< 2.5	< 2.5		2,800	1,500	< 2.5	< 2.5	9,400	
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	< 0.50	< 2.5		1,400	560	< 2.5	< 2.5	5,200	
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	< 2.5	< 2.5		3,900	1,200	< 2.5	< 2.5	12,000	
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	< 2.5	< 2.5		5,400	940	< 12	< 2.5	13,000	
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	< 0.50	< 0.50		350	320	< 0.50	< 0.50	1,500	
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	< 2.5	< 2.5		2,500	940	< 2.5	< 2.5	8,600	
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	< 0.50	< 0.50		380	380	< 0.50	< 0.50	2,100	
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	< 0.50	< 2.5		1,500	870	< 2.5	< 2.5	5,300	
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	< 0.50	< 0.50		890	530	< 2.5	< 2.5	3,200	
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	< 0.50	< 0.50		980	490	< 2.5	< 2.5	3,200	
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	< 0.50	< 2.5		1,700	570	< 2.5	< 2.5	6,100	
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	< 0.50	< 0.50		1,800	1,500	< 2.5	< 2.5	6,900	
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	< 0.50	< 0.50		1,600	640	< 2.5	< 2.5	5,800	
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	< 2.5	< 2.5		3,700	1,100	< 2.5	< 2.5	12,000	
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	< 2.5	< 2.5		4,900	1,100	< 2.5	< 2.5	12,000	
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		240	160	< 0.50	< 0.50	1,300	
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	< 2.5	< 2.5		2,300	500	< 2.5	< 2.5	7,300	
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	< 2.5	< 2.5		3,400	700	< 2.5	< 2.5	11,000	
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	< 2.5	< 2.5		4,300	690	< 2.5	< 12	13,000	
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	< 2.5	< 2.5		3,600	690	< 2.5	< 12	13,000	
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		260	210	< 0.50	< 0.50	1,000	
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		730	240	< 2.5	< 2.5	3,600	
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	< 0.50	< 2.5		1,400	350	< 2.5	< 2.5	5,300	
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	< 2.5	< 2.5		2,700	530	< 2.5	< 2.5	7,500	
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	< 2.5	< 2.5		2,900	530	< 2.5	< 2.5	7,800	
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		250	210	< 0.50	< 0.50	1,200	
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	< 2.5	< 2.5		3,000	1,000	< 2.5	< 2.5	7,900	
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	< 2.5	< 2.5		4,700	860	< 2.5	< 2.5	11,000	
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	< 0.50	< 0.50		110	210	< 0.50	< 0.50	830	
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	< 0.50	< 0.50		1,300	460	< 0.50	< 0.50	4,800	

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Total organic carbon Results by method SM 5310 C (mg/L)	TPH as diesel Results by method SW 8015B (µg/L)	TPH as motor oil Results by method SW 8015B (µg/L)	Vanadium Results by method SW 6020 (µg/L)	Vanadium, dissolved Results by method SW 6020 (µg/L)	Zinc Results by method SW 6020 (µg/L)	Zinc, dissolved Results by method SW 6020 (µg/L)	Deuterium Results by method CFIRM (0/00)**	Oxygen 18 Results by method CFIRM (0/00)**
MW-10D	MW-10D-1219	N	LF		GW	12/18/2019	< 10			10	9.2	< 10	< 10		
MW-11D	MW-11D-1219	N	LF		GW	12/18/2019	< 1.0			4	2.9	< 10	< 10		
MW-75-033	MW-B-33-1219	N	LF		GW	12/2/2019	< 1.0			3.2	2.9	< 10	< 10		
MW-75-117	MW-B-117-1219	N	LF		GW	12/2/2019	< 10			1.2	1.3	< 10	< 10		
MW-75-202	MW-B-202-1219	N	LF		GW	12/2/2019	< 1.0			< 1.0	< 1.0	< 50	< 50		
MW-75-267	MW-B-267R-1219	N	LF		GW	12/2/2019	< 1.0			< 5.0	< 5.0	< 50	< 50		
MW-75-337	MW-B-337-1219	N	LF		GW	12/2/2019	< 1.0			< 5.0	< 5.0	< 50	< 50		
MW-75-337	MW-932-Q419	FD		MW-B-337-1219	GW	12/2/2019	< 1.0			< 5.0	< 5.0	< 50	< 50		
MW-76-039	MW-C-39-1219	N	LF		GW	12/3/2019	< 1.0			3	2.8	< 10	< 10		
MW-76-156	MW-C-156-1219	N	LF		GW	12/3/2019	< 1.0			2.4	< 5.0	< 10	< 50		
MW-76-181	MW-C-181-1219	N	LF		GW	12/3/2019	< 1.0			1.2	< 5.0	< 50	< 50		
MW-76-218	MW-C-218-1219	N	LF		GW	12/3/2019	< 1.0			< 1.0	< 5.0	< 50	< 50		
MW-77-046	MW-D-46R-1219	N	LF		GW	12/3/2019	1.8			5.2	2.8	< 10	< 10		
MW-77-046	MW-933-Q419	FD		MW-D-46R-1219	GW	12/3/2019	2			5	3	< 10	< 10		
MW-77-102	MW-D-102-1219	N	LF		GW	12/3/2019	< 10			3.4	3.2	< 10	< 10		
MW-77-158	MW-D-158-1219	N	LF		GW	12/3/2019	< 1.0			3.3	< 5.0	< 50	< 50		
MW-77-187	MW-D-187-1219	N	LF		GW	12/3/2019	< 1.0			3.9	3.2	< 10	< 50		
MW-78-072	MW-E-72-1219	N	LF		GW	12/2/2019	< 1.0			6.5	6.1	< 10	< 10		
MW-78-142	MW-E-142-1219	N	LF		GW	12/2/2019	< 1.0			3.4	1.7	< 10	< 50		
MW-79-060	MW-F-60-1219	N	LF		GW	12/2/2019	< 1.0			4.1	3	< 10	< 10		
MW-79-104	MW-F-104-1219	N	LF		GW	12/2/2019	< 1.0			3	3	< 10	< 10		
MW-80-057	MW-G-57-1219	N	LF		GW	12/2/2019	< 1.0			4.4	4.5	48	< 10		
MW-80-057	MW-934-Q419	FD		MW-G-57-1219	GW	12/2/2019	< 1.0			4.6	4.6	< 10	< 10		
MW-80-082	MW-G-82-1219	N	LF		GW	12/2/2019	< 1.0			1.2	1.1	< 10	< 10		
MW-82-046	MW-H-46-1219	N	3V		GW	12/4/2019	1.9			2.1	1.7	< 10	< 10		
MW-82-112	MW-H-112-1219	N	LF		GW	12/4/2019	< 1.0			5.5	5.1	< 10	< 10		
MW-82-168	MW-H-168-1219	N	LF		GW	12/4/2019	< 1.0			1.9	1.6	< 10	< 10		
MW-82-198	MW-H-198-1219	N	LF		GW	12/4/2019	< 1.0			2.1	1.7	< 10	< 50		
MW-83-090	MW-L-90-1219	N	LF		GW	12/11/2019	< 1.0			2.8	2.6	< 10	< 10		
MW-83-180	MW-L-180-1219	N	LF		GW	12/11/2019	< 1.0			8.7	8.8	< 10	< 10		
MW-83-225	MW-L-225-1219	N	LF		GW	12/11/2019	< 1.0			12	5.5	130	< 10		
MW-83-245	MW-L-245-1219	N	LF		GW	12/11/2019	< 1.0			2.2	2.4	< 10	< 10		
MW-83-245	MW-935-Q419	FD		MW-L-245-1219	GW	12/11/2019	< 1.0			2.2	2.5	< 10	< 10		
MW-84-057	MW-M-57-1219	N	LF		GW	12/11/2019	< 1.0			8.3	7	< 10	< 10		
MW-84-095	MW-M-95-1219	N	LF		GW	12/11/2019	< 1.0			6.8	3.4	< 10	< 10		
MW-84-132	MW-M-132-1219	N	LF		GW	12/11/2019	< 1.0			4.1	3.2	< 10	< 10		
MW-84-193	MW-M-193-1219	N	LF		GW	12/11/2019	< 1.0			10	6.9	< 10	< 10		
MW-84-193	MW-936-Q419	FD		MW-M-193-1219	GW	12/11/2019	< 1.0			11	6.8	< 10	< 10		
MW-85-129	MW-N-129-1219	N	LF		GW	12/11/2019	< 1.0			8.5	7.2	< 10	< 10		
MW-85-217	MW-N-217-1219	N	LF		GW	12/11/2019	< 1.0			7	6.1	< 10	< 10		
MW-85-237	MW-N-237-1219	N	LF		GW	12/11/2019	< 1.0			4.1	3.8	< 10	< 10		
MW-86-030	MW-O-30-1219	N	LF		GW	12/6/2019	1.2			1.5	< 1.0	< 10	< 10		
MW-86-066	MW-O-66-1219	N	LF		GW	12/6/2019	< 1.0			< 1.0	< 1.0	< 10	< 10		

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Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Alkalinity, total as CaCO ₃ Results by method SM 2320 B (mg/L)	Aluminum Results by method SW 6010B (µg/L)	Aluminum, dissolved Results by method SW 6010B (µg/L)	Ammonia as nitrogen Results by method A4500NH (mg/L)*	Antimony Results by method SW 6020 (µg/L)	Antimony, dissolved Results by method SW 6020 (µg/L)	Arsenic Results by method SW 6020 (µg/L)	Arsenic, dissolved Results by method SW 6020 (µg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	99	< 50	< 50	0.14	< 2.5	< 0.50	2.5	2.5
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	65	< 250	< 50	0.24	< 2.5	< 2.5	1.3	1.4
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	80	470	< 50	0.08	< 0.50	< 0.50	0.8	0.7
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	48	< 50	< 50	0.07	< 0.50	< 0.50	< 0.10	< 0.10
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	50	380	< 50	0.14	< 0.50	< 0.50	2.5	< 0.10
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	44	< 50	< 50	0.06	< 0.50	< 0.50	3.5	3.4
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	140	290	< 50	0.18	< 0.50	< 0.50	1.5	1.1
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	54	400	< 50	0.08	< 0.50	< 0.50	< 0.10	< 0.10
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	59	160	< 50	0.07	< 0.50	< 0.50	5.7	5.8
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	840	160	150	8.9	< 2.5	< 0.50	5.1	4.7
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	220	180	< 50	0.14	< 0.50	< 0.50	4	3.9
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	150	< 50	< 50	0.09	< 0.50	< 0.50	< 0.10	< 0.10
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	47	140	< 50	0.23	< 0.50	< 2.5	4.7	4.5
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	75	< 250	< 250	0.09	< 2.5	< 2.5	< 0.50	< 0.50
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	150	330	< 50	0.09	< 0.50	< 0.50	22	21
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	120	99	< 50	0.08	0.64	0.62	15	16
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	110	300	79	0.08	< 0.50	< 0.50	7	6.8
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	89	< 50	< 50	0.07	< 2.5	< 2.5	3.8	3.7
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019		400	< 50		< 0.50	< 0.50	6.2	6.2
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019		820	< 50		< 0.50	< 0.50	6.5	6.5
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019		500	< 50		< 0.50	< 0.50	4.2	4.2
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	270	< 50	< 50	1.1	< 0.50	< 0.50	6.7	6.5
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	230	< 50	< 50	0.15	< 0.50	< 0.50	1.4	1.3

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Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Barium Results by method SW 6020 (µg/L)	Barium, dissolved Results by method SW 6020 (µg/L)	Beryllium Results by method SW 6020 (µg/L)	Beryllium, dissolved Results by method SW 6020 (µg/L)	Boron Results by method SW 6010B (µg/L)	Boron, dissolved Results by method SW 6010B (mg/L)	Bromide Results by method EPA 300.0 (mg/L)	Cadmium Results by method SW 6020 (µg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	79	78	< 0.50	< 0.50	1,100	0.93	< 5.0	< 2.5
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	98	100	< 0.50	< 0.50	1,100	1	< 5.0	< 2.5
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	99	94	< 0.50	< 0.50	400	0.45	< 1.0	< 0.50
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	280	270	< 0.50	< 0.50	630	0.73	< 5.0	< 0.50
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	110	110	< 0.50	< 0.50	1,300	1.2	< 5.0	< 0.50
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	95	98	< 0.50	< 0.50	1,500	1.5	< 5.0	< 0.50
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	59	52	< 0.50	< 0.50	390	0.36	< 2.5	< 0.50
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	180	180	< 0.50	< 0.50	660	0.62	< 5.0	< 0.50
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	35	37	< 0.50	< 0.50	1,200	1.2	< 2.5	< 2.5
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	160	140	< 0.50	< 0.50	2,600	1.8	< 5.0	< 2.5
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	350	340	< 0.50	< 0.50	610	0.58	< 2.5	< 0.50
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	48	43	< 0.50	< 0.50	1,300	1.3	< 5.0	< 2.5
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	100	83	< 2.5	< 0.50	1,600	1.6	< 2.5	< 2.5
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	200	200	< 0.50	< 0.50	4,700	4	< 5.0	< 2.5
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	17	9	< 12	< 0.50	730	0.61	< 1.0	< 0.50
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	60	54	< 0.50	< 0.50	750	0.72	< 1.0	< 0.50
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	120	110	< 0.50	< 0.50	1,000	1	< 2.5	< 0.50
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	100	93	< 0.50	< 2.5	3,100	3	< 2.5	< 2.5
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019	110	110	< 0.50	< 0.50	510	0.56	< 2.5	< 0.50
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019	250	250	< 0.50	< 0.50	410	0.47	< 2.5	< 0.50
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019	23	24	< 0.50	< 0.50	600	0.69	< 2.5	< 0.50
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	240	250	< 0.50	< 0.50	200	0.18	< 1.0	< 0.50
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	58	53	< 0.50	< 0.50	410	0.39	< 2.5	< 0.50

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Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Cadmium, dissolved Results by method SW 6020 (µg/L)	Calcium Results by method SW 6010B (µg/L)	Calcium, dissolved Results by method SW 6010B (mg/L)	Chloride Results by method EPA 300.0 (mg/L)	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total Results by method SW 6020 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)	Cobalt Results by method SW 6020 (µg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	< 2.5	310,000	270	3,600	< 1.0	4	< 1.0	< 0.50
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	< 2.5	630,000	540	5,700	< 1.0	1.5	< 1.0	< 0.50
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	< 0.50	110,000	120	520	26	25	24	< 0.50
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	< 0.50	450,000	560	2,100	8.7	8.6	7.9	< 0.50
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	< 0.50	230,000	250	2,800	< 0.20	6.4	< 1.0	0.54
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	< 0.50	270,000	260	3,400	0.27	1.4	< 1.0	< 0.50
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	< 0.50	66,000	62	360	36	39	32	0.56
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	< 0.50	410,000	360	2,200	0.63	7.7	< 1.0	0.89
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	< 0.50	140,000	140	2,100	0.6	6.3	1.6	0.58
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	< 2.5	440,000	380	4,200	< 1.0	8.5	< 1.0	0.96
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	< 0.50	130,000	130	970	< 0.20	1.9	< 1.0	< 0.50
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	< 2.5	240,000	240	2,900	1.7	5.6	2.8	< 0.50
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	< 2.5	140,000	140	3,600	< 1.0	1.8	< 1.0	< 0.50
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	< 2.5	480,000	450	10,000	< 1.0	< 1.0	< 5.0	< 0.50
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	< 0.50	13,000	11	380	< 0.20	< 1.0	< 1.0	< 0.50
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	< 0.50	21,000	19	590	< 0.20	< 1.0	< 1.0	< 0.50
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	< 0.50	23,000	21	1,000	< 0.20	1.8	< 1.0	< 0.50
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	< 2.5	79,000	82	4,700	< 1.0	< 1.0	< 1.0	< 0.50
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019	< 0.50	39,000	36	350	2.8	4.9	2.7	< 0.50
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019	< 0.50	20,000	18	200	0.26	3.5	< 1.0	< 0.50
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019	< 0.50	44,000	39	250	7.1	8.7	6.7	< 0.50
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	< 0.50	87,000	82	100	< 0.20	< 1.0	< 1.0	< 0.50
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	< 0.50	130,000	120	650	< 0.20	< 1.0	< 1.0	< 0.50

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Cobalt, dissolved Results by method SW 6020 (µg/L)	Copper Results by method SW 6020 (µg/L)	Copper, dissolved Results by method SW 6020 (µg/L)	Fluoride Results by method EPA 300.0 (mg/L)	Iron Results by method SW 6010B (µg/L)	Iron, dissolved Results by method SW 6010B (µg/L)	Lead Results by method SW 6020 (µg/L)	Lead, dissolved Results by method SW 6020 (µg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	< 0.50	< 1.0	< 1.0	3.1	81	< 100	< 5.0	< 5.0
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	< 0.50	< 1.0	< 1.0	3.3	< 100	< 100	< 5.0	< 5.0
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	< 0.50	< 1.0	< 1.0	2.5	780	27	< 1.0	< 1.0
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	< 0.50	< 1.0	< 1.0	2.9	34	< 20	< 5.0	< 5.0
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	4	540	62	< 5.0	< 5.0
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	4.6	97	29	< 5.0	< 5.0
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	< 0.50	< 1.0	< 1.0	1.1	560	81	< 1.0	< 1.0
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	3.3	420	53	< 5.0	< 5.0
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	< 0.50	< 1.0	< 1.0	4.9	230	23	< 5.0	< 5.0
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	< 0.50	< 1.0	< 1.0	1.9	14,000	11,000	< 5.0	< 5.0
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	2.5	810	520	< 1.0	< 1.0
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	2.2	160	82	< 5.0	< 5.0
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	6	290	64	< 5.0	< 5.0
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	< 2.5	< 5.0	< 5.0	5.5	1,100	880	< 5.0	< 25
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	4	600	90	1.2	< 1.0
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	4.3	230	32	< 1.0	< 1.0
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	5.4	770	200	< 1.0	< 1.0
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	< 0.50	< 1.0	< 1.0	7.2	150	83	< 25	< 5.0
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019	< 0.50	< 1.0	< 1.0	3.7	520	27	< 1.0	< 1.0
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019	< 0.50	< 1.0	< 1.0	4.3	1,300	77	< 1.0	< 1.0
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019	< 0.50	< 1.0	< 1.0	4.6	570	46	< 1.0	< 1.0
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	< 0.50	< 1.0	< 1.0	0.46	1,300	1,100	< 1.0	< 1.0
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	< 0.50	6.5	2	1.2	130	75	< 1.0	< 1.0

Preliminary Transition Monitoring Program 2019-12 Baseline Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Magnesium, Results by method SW 6010B (µg/L)	Magnesium, dissolved Results by method SW 6010B (mg/L)	Manganese, Results by method SW 6020 (µg/L)	Manganese, dissolved Results by method SW 6020 (µg/L)	Mercury, Results by method EPA 7470A (µg/L)	Mercury, dissolved Results by method EPA 7470A (µg/L)	Molybdenum, Results by method SW 6020 (µg/L)	Molybdenum, dissolved Results by method SW 6020 (µg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	70,000	63	1300	1400	< 0.20	< 0.20	45	47
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	85,000	69	1500	1600	< 0.20	< 0.20	42	44
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	15,000	17	37	23	< 0.20	< 0.20	9.3	10
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	70,000	90	11	8.9	< 0.20	< 0.20	4.7	5
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	22,000	24	130	94	< 0.20	< 0.20	29	28
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	20,000	20	130	110	< 0.20	< 0.20	42	43
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	9,600	9.6	83	67	< 0.20	< 0.20	16	16
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	62,000	61	36	12	< 0.20	< 0.20	9.3	9.2
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	7,700	7.8	4.8	1.7	< 0.20	< 0.20	38	39
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	350,000	360	500	350	< 0.20	< 0.20	14	16
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	48,000	44	330	320	< 0.20	< 0.20	11	11
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	27,000	25	370	360	< 0.20	< 0.20	8	7.6
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	7,800	7.3	160	150	< 0.20	< 0.20	220	220
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	31,000	28	780	840	< 0.20	< 0.20	41	44
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	2,000	1.7	21	8.7	< 0.20	< 0.20	17	18
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	2,100	1.8	17	13	< 0.20	< 0.20	21	22
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	2,200	2.1	25	14	< 0.20	< 0.20	44	45
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	6,200	5.8	160	170	< 0.20	< 0.20	210	220
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019	6,500	6.5	78	68	< 0.20	< 0.20	24	25
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019	2,400	1.9	66	56	< 0.20	< 0.20	19	21
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019	12,000	12	80	73	< 0.20	< 0.20	21	21
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	30,000	30	330	320	< 0.20	< 0.20	4.9	4.9
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	30,000	30	190	180	< 0.20	< 0.20	9.4	8.7

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Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Nickel, dissolved Results by method SW 6020 (µg/L)	Nickel Results by method SW 6020 (µg/L)	Nitrate/Nitrite as Nitrogen Results by method SM 4500-NO3 F (mg/L)	Nitrate/Nitrite as Nitrogen Results by method SM4500-NO3F (mg/L)	Potassium Results by method SW 6010B (µg/L)	Potassium, dissolved Results by method SW 6010B (µg/L)	Selenium Results by method SW 6020 (µg/L)	Selenium, dissolved Results by method SW 6020 (µg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	2.4	< 1.0	0.23			19	< 0.50	< 0.50
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	1.3	< 1.0	0.83			27	< 0.50	< 0.50
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	8			10	6.3	6.3
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	< 1.0	< 1.0	1.2			19	0.83	< 2.5
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	0.54			18	0.8	0.76
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	0.52			21	0.77	0.85
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	< 1.0	< 1.0	9.3		9,400	9.4	4.2	3.9
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	2.2			15	2.1	2.1
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	< 1.0	< 1.0	2.7			17	3.4	3.5
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	4.2	< 1.0	0.077			21	< 2.5	0.52
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	0.051			11	< 0.50	< 0.50
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	1.7			15	0.76	0.85
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	0.43			24	< 0.50	< 0.50
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	< 5.0	< 5.0	< 0.050			100	< 2.5	< 2.5
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	< 0.050			4.8	< 0.50	< 0.50
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	0.65			10	0.55	0.5
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	< 0.050			13	< 0.50	< 0.50
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	< 1.0	< 1.0	< 0.050			42	< 0.50	< 0.50
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019	< 1.0	< 1.0	1.7			7.1	0.69	0.62
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019	< 1.0	< 1.0	1			5.3	0.54	0.62
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019	< 1.0	< 1.0	2.4			7.2	2.5	2.6
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	< 1.0	< 1.0	< 0.050			4.4	< 0.50	< 0.50
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	< 1.0	< 1.0	< 0.050			7.5	< 0.50	< 0.50

Preliminary Transition Monitoring Program 2019-12 Baseline Sampling

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Silver, dissolved Results by method SW 6020 (µg/L)	Silver Results by method SW 6020 (µg/L)	Sodium Results by method SW 6010B (µg/L)	Sodium, dissolved Results by method SW 6010B (mg/L)	Sulfate Results by method EPA 300.0 (mg/L)	Sulfate Results by method SW 300.0 (mg/L)	Thallium Results by method SW 6020 (µg/L)	Thallium, dissolved Results by method SW 6020 (µg/L)	Total dissolved solids Results by method SM 2540 C (mg/L)
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	< 2.5	< 2.5		2,400	1,000	< 2.5	< 2.5	8,200	
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	< 2.5	< 2.5		3,400	980	< 2.5	< 2.5	12,000	
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	< 0.50	< 0.50		330	170	< 0.50	< 0.50	1,300	
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	< 0.50	< 0.50		980	330	< 2.5	< 2.5	5,100	
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		1,600	340	< 2.5	< 2.5	5,400	
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		1,800	440	< 2.5	< 2.5	7,000	
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	< 0.50	< 0.50	280,000	230	170	< 0.50	< 0.50	1,000	
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	< 0.50	< 0.50		1,100	470	< 2.5	< 2.5	4,800	
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	< 2.5	< 0.50		1,500	490	< 2.5	< 2.5	4,400	
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	< 2.5	< 2.5		3,200	1,500	< 2.5	< 2.5	11,000	
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	< 0.50	< 0.50		530	100	< 0.50	< 0.50	2,000	
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	< 2.5	< 2.5		1,900	730	< 2.5	< 2.5	6,400	
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	< 2.5	< 2.5		2,500	630	< 2.5	< 2.5	7,800	
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	< 2.5	< 2.5		6,900	1,400	< 2.5	< 12	18,000	
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	< 0.50	< 0.50		350	90	< 0.50	< 0.50	980	
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	< 0.50	< 0.50		460	97	< 0.50	< 0.50	1,300	
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	< 0.50	< 0.50		760	130	< 0.50	< 0.50	2,100	
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	< 2.5	< 2.5		3,000	360	< 12	< 2.5	9,000	
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019	< 0.50	< 0.50		220	93	< 0.50	< 0.50	830	
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019	< 0.50	< 0.50		170	61	< 0.50	< 0.50	560	
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019	< 0.50	< 0.50		190	140	< 0.50	< 0.50	730	
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	< 0.50	< 0.50		97	170	< 0.50	< 0.50	710	
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	< 0.50	< 0.50		390	320	< 0.50	< 0.50	1,700	

Location ID	Sample ID	Sample Type	Sample Method	Parent Sample Code	Matrix	Sample Date	Total organic carbon Results by method SM 5310 C (mg/L)	TPH as diesel Results by method SW 8015B (µg/L)	TPH as motor oil Results by method SW 8015B (µg/L)	Vanadium Results by method SW 6020 (µg/L)	Vanadium, dissolved Results by method SW 6020 (µg/L)	Zinc Results by method SW 6020 (µg/L)	Zinc, dissolved Results by method SW 6020 (µg/L)	Deuterium Results by method CFIRM (0/00)**	Oxygen 18 Results by method CFIRM (0/00)**
MW-86-120	MW-O-120-1219	N	LF		GW	12/6/2019	< 1.0			< 1.0	< 1.0	< 10	< 10		
MW-86-140	MW-O-140-1219	N	LF		GW	12/6/2019	< 1.0			< 1.0	< 1.0	< 10	< 10		
MW-87-109	MW-R-109-1219	N	LF		GW	12/2/2019	< 1.0			4.1	3.5	< 10	< 10		
MW-87-139	MW-R-139-1219	N	LF		GW	12/2/2019	< 1.0			3.1	3.4	< 10	< 10		
MW-87-192	MW-R-192-1219	N	LF		GW	12/11/2019	< 1.0			6.1	4.7	< 10	< 10		
MW-87-275	MW-R-275-1219	N	LF		GW	12/11/2019	< 1.0			3.7	3.6	< 10	< 10		
MW-88-109	MW-S-107R-1219	N	LF		GW	12/18/2019	< 1.0			9.3	6.8	< 10	< 10		
MW-89-183	MW-U-183-1219	N	LF		GW	12/11/2019	< 1.0			3.8	2.9	< 10	< 10		
MW-89-273	MW-U-273-1219	N	LF		GW	12/11/2019	< 1.0			15	14	< 10	< 10		
MW-90-031	MW-W-31-1219	N	LF		GW	12/9/2019	< 10			5.1	2.7	< 10	< 10		
MW-91-045	MW-X-45-1219	N	LF		GW	12/5/2019	< 1.0			< 1.0	< 1.0	< 10	< 10		
MW-91-120	MW-X-120-1219	N	LF		GW	12/5/2019	< 1.0			1.1	< 1.0	< 10	< 10		
MW-91-170	MW-X-170-1219	N	LF		GW	12/5/2019	< 10			< 1.0	< 1.0	< 10	< 10		
MW-91-320	MW-X-320-1219	N	LF		GW	12/5/2019	< 1.0			< 5.0	< 5.0	< 50	< 50		
MW-92-037	MW-Y-37-1219	N	LF		GW	12/5/2019	< 1.0			1.3	< 1.0	< 10	< 10		
MW-92-072	MW-Y-72-1219	N	LF		GW	12/5/2019	< 1.0			5.6	5.1	< 10	< 10		
MW-92-102	MW-Y-102-1219	N	LF		GW	12/5/2019	< 1.0			1.2	< 1.0	< 10	< 10		
MW-92-122	MW-Y-122-1219	N	LF		GW	12/5/2019	< 1.0			< 1.0	< 1.0	< 10	< 10		
MW-94-100	MW-94-100-1219	N	LF		GW	12/12/2019				12	11	< 10	< 10	72.07	10.23
MW-94-175	MW-94-175-1219	N	LF		GW	12/12/2019				5.4	4	< 10	< 10	72.86	10.4
MW-94-30	MW-94-30-1219	N	LF		GW	12/12/2019				9.7	9.3	< 10	< 10	72.26	9.95
RB-5-SC	RB-5-SC-24-44	N			GW	12/18/2019	1.5	< 51	< 51	< 1.0	< 1.0	42	19		
RB-5-SC	RB-5-SC-64-89	N			GW	12/17/2019	< 10	< 51	< 51	2.6	2.3	36	43		

Notes:

*Analyses were performed by Pace Analytical. All other samples were analyzed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

3V = three casing volumes

CFIRM = Continuous Flow Isotope Mass Spectrometry

FD = field duplicate

GW = groundwater

mg/L = milligrams per liter

R = river sample

N = Normal

SW = solid waste

SM = standard method

Preliminary Transition Monitoring Program 2019-12 Post Development Sampling

Location ID	Sample ID	Sample Type	Matrix	Sample Date	Chromium, Hexavalent Results by method EPA 218.6 (µg/L)	Chromium, total dissolved Results by method SW 6020 (µg/L)
MW-81-98	MW-81-98-121919	N	GW	12/19/2019	< 0.20	< 1.0
MW-94-100	MW-94-100-120619	N	GW	12/6/2019	2.1	2.6
MW-94-175	MW-94-175-120419	N	GW	12/4/2019	5.7	5.2
MW-94-30	MW-94-30-120719	N	GW	12/7/2019	11	9.5

Notes:

Analyses were performed by Asset Laboratory.

< = analyte not detected at the reporting limit shown

Acronyms and Abbreviations:

µg/L = micrograms per liter

EPA = Environmental Protection Agency

GW = groundwater

N = Normal

SW = solid waste