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February 9, 2019

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

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

Subject: January 2019 Monthly Progress Report for the Final Groundwater Remedy Construction

and Startup, PG&E Topock Compressor Station, Needles, California

(Document ID: TPK\_Monthly Progress Report\_January 2019)

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) (¶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 2019 as well as activities planned for the next six weeks (February 4 to March 16, 2019), and presents available results from sampling and testing performed in January 2019.

In addition, this report discusses material deviations from the approved design documents and/or the C/RAWP, if any, that PG&E has proposed to the California Department of Toxic Substances Control (DTSC) and the U.S. Department of the Interior (DOI), or that have been approved by DTSC and DOI. This report also highlights key personnel changes, if any, and summarizes activities performed and activities planned in support of DOI's 2012 Community Involvement Plan and DTSC's 2013 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.

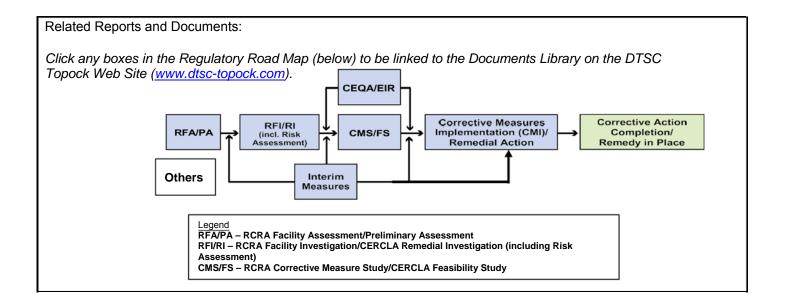
Monthly progress reports will be submitted to DTSC and DOI by the 10<sup>th</sup> day of the following month during construction and start-up of the groundwater remedy at the Topock Compressor Station which officially began on October 2, 2018. This is the fourth monthly progress report. Please contact 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: January 2019 Monthly Progress Report for the Groundwater Remedy Construction and Startup, PG&E Topock Compressor Station, Needles, California Submitting Agency: DOI, DTSC Final Document?	Date of Document: 2/10/2019 Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other) PG&E
Priority Status: ☐ HIGH ☐ MED ☐ LOW	Action Required:
Is this time critical? ☐ Yes ☒ No	☐ Information Only ☐ Review & Input
Type of Document:	☐ Other / Explain:
□ Draft ⊠ Report □ Letter □ Memo	
☐ Other / Explain:	
What does this information pertain to?	Is this a Regulatory Requirement?
☐ Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary	⊠ Yes
Assessment (PA)	□ No
☐ RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment)	If no, why is the document needed?
☐ Corrective Measures Study (CMS)/Feasibility Study (FS)	
<ul><li>☑ Corrective Measures Implementation (CMI)/ Remedial Action(RA)</li></ul>	
☐ California Environmental Quality Act (CEQA)/ Environmental Impact Report (EIR)	
☐ Interim Measures	
□ Other / Explain:	
What is the consequence of NOT doing this item? What is the consequence of DOING this item?	Other Justification/s:  ☐ Permit ☐ Other / Explain:
The consequence for not doing this item is PG&E will be out of compliance with the 1996 Corrective Action Consent Agreement (CACA) and the 2013 Remedial Design/Remedial Action Consent Decree (CD), as well as the Construction/Remedial Action Work Plan (C/RAWP).	
Brief Summary of attached document:	
This monthly report describes activities taken during January 2019 March 16, 2019) and presents available results from sampling and material deviations from the approved design documents and/or th that PG&E has proposed to the California Department of Toxic Sul (DOI) or that have been approved by DTSC and DOI. This report a activities performed and activities planned at the Topock Compress Plan and DTSC's 2013 Community Outreach Plan, as well as cont public interest groups, if any.	testing in January 2019. In addition, this report discusses e Construction/ Remedial Action Work Plan (C/RAWP), if any, ostances Control (DTSC) and the U.S. Department of the Interior liso highlights key personnel changes, if any, and summarizes sor Station in support of DOI's 2012 Community Involvement
Written by: Pacific Gas and Electric Company	
Recommendations:	
Provide input to PG&E.	200 100 000 000
How is this information related to the Final Remedy or Regulatory F This submittal is required in compliance with the CACA, CD, and pr	·
Other requirements of this information? None.	





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

PG&E Topock Compressor Station Needles, California

**Document ID: TPK\_Monthly Progress Report\_January 2019** 

February 2019

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

On Behalf of Pacific Gas and Electric Company





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Noise Monitoring Data Summary (SEIR NOISE-2 requirement) Six-Week Look-Ahead Schedule (February 4 to March 16, 2019)

Validated Groundwater Monitoring Data (DTSC Condition of Approval xi)



#### **Acronyms and Abbreviations**

μg/m<sup>3</sup> micrograms per cubic meter

AOC Area of Concern

APE Area of Potential Effect

ARAR applicable or relevant and appropriate requirement

bgs below ground surface

BLM U.S. Bureau of Land Management

BMP best management practice

CACA Corrective Action Consent Agreement

C/RAWP Construction/Remedial Action Work Plan

CD Consent Decree

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CH2M CH2M HILL, Inc.

CHQ Construction Headquarters

DOI United States Department of the Interior

DTSC California Department of Toxic Substances Control

ERTC Environmental Release to Construct

FCR field contact representative

LOC level of concern

NTH National Trails Highway

PBA Programmatic Biological Agreement
PG&E Pacific Gas and Electric Company

RCRA Resource Conservation and Recovery Act
SEIR Subsequent Environmental Impact Report

SPY Soil Processing Yard

SWPPP Stormwater Pollution Prevention Plan

TCS Topock Compressor Station
TRC Technical Review Committee

USEPA U.S. Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service

WEAT Worker Environmental Awareness Training

WVR Work Variance Request



#### 1. Introduction

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

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

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

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

- Section 2.1 describes completed construction activities; data collected, generated or received; nature
  and volume of waste generated; waste handling/disposal; issues encountered; actions taken to rectify
  problems/issues; personnel changes; and Work Variance Requests (WVRs; i.e., material deviations
  from the design documents, the C/RAWP, or other approved work plans), if any, as well as agencies'
  actions on those requests, and potential schedule impacts.
- Section 2.2 summarizes contacts with representatives of the press, local community, or public interest groups during the reporting period, other activities provided to assist DTSC and/or DOI in support of the Community Outreach Plan (DTSC, 2013) and/or Community Involvement Plan (DOI, 2012), respectively, and anticipated near-term (approximately next six weeks) activities in support of the Community Outreach and Community Involvement Plans.
- Section 2.3 describes the planned activities for the next six weeks (construction activities, sampling and monitoring events, etc.).
- Section 2.4 provides information relating to the construction schedule progress, sequencing of
  activities, information regarding percentage of completion, unresolved delays encountered or
  anticipated that may affect the future schedule, and a description of efforts made to mitigate those
  delays or anticipated delays, if any.
- Section 3 lists the references cited in this report.

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



#### 2. Monthly Update

#### 2.1 Description of Activities and Work Completed

#### 2.1.1 Work Completed

Highlights of key activities related to the construction of the groundwater remedy completed during January 2019 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), Tribes, and the Technical Review Committee (TRC). PG&E continues to send these weekly emails to date. As of January 31, 2019, a total of 28 six-week look-ahead schedule emails have been sent. Of those, four six-week look-ahead schedule emails were sent in January 2019 (on January 2, 6, 13, and 16, 2019).
  - On January 16, 2019, PG&E announced that the project will be temporarily shut down for two weeks; therefore, no construction fieldwork occurred between January 16 and 31, 2019.
- On August 10, 2018, PG&E issued the first Environmental Release to Construct (ERTC) to contractors. As of January 31, 2019, a total of 29 ERTCs were issued for mobilization and construction activities (see Table 2-1). Of those, four ERTCs were issued in January 2019.
- 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 2019, a total of 13 daily construction activities lists were published and discussed at
  the morning tailboards.
- In January 2019, PG&E completed the following construction activities (see Figures 2-1 and 2-2 for locations of key areas and wells, as well as select photos in **Attachment A**):
  - Installed compliant night-time lighting at the Soil Processing Yard (SPY) to allow for early morning biological clearance and work in the yard, and to delineate the front parking area.
  - Removed form board from concrete at the Construction Headquarters (CHQ) access road.
  - Installed conduit and concrete cap in the CHQ access road area.
  - Installed handrail for walking path from MW-20 Bench to the floodplain.
  - Participated in a site walk to MW-X and MW-Y' locations at the invitation of the U.S. Bureau of Land Management (BLM).
  - Pilot Boring/Well Installation Activities (Rotosonic drilling):
    - a) Completed backfilling pilot borehole at IRZ-9 in the floodplain.
    - b) Completed drilling and began installation of well MW-F on January 9, 2019 (drilled to 131 feet and reamed to 122 feet).
    - c) See **Attachment B** for available information such as boring logs and water analytical results.
  - Baseline/Opportunistic Soil Sampling Activities:
    - No baseline or opportunistic soil sampling occurred in January 2019.
    - See Attachment C for information about soil sampling locations and soil analytical results that are available at this time.



#### Perimeter Air Sampling Activities:

- a) Dust monitoring was conducted through January 16, 2019 at the perimeter of select work areas.
- b) Perimeter air sampling for hexavalent chromium is performed at the perimeter of the work areas (outside of the exclusion zone) that are inside Areas of Concern (AOCs) within the construction footprint where hexavalent chromium concentrations in soil have been historically reported. No perimeter air sampling was conducted in January 2019.
- See Attachment D for information about previous air sampling locations and air analytical results.

#### - Noise Monitoring Activities:

- a) Noise monitoring is conducted at pre-approved locations closest to the construction activities. Through January 31, 2019, noise monitoring was conducted at the following pre-approved locations:
  - Location west of the mobile home park at Moabi Regional Park,
  - Location Maze B Combined Area 1/2, and
  - Location Maze C Area 1.
- b) See **Attachment E** for information about pre-approved noise monitoring locations and a summary of noise monitoring data available to date.

#### 2.1.2 Work Already Underway and During Implementation

As of January 31, 2019, PG&E has started and will continue to perform the following activities:

- Continue site preparation, potholing, and vegetation clearance along Pipeline C segments C1 to C6.
- Continue non-intrusive site preparation work for the Brine Tanks containment upgrade at the MW-20 Bench.
- Continue drilling at MW-B in the floodplain.
- Continue drilling at MW-N in the upland.
- Continue well development at MW-L in the upland.
- Continue welding of the water service pipes for wells in the floodplain.
- Complete well installation at MW-F along NTH.
- Continue weekly watering of the transplanted plants at the approved location off NTH (except when it rains).
- Continue to conduct noise and dust monitoring and inspection of Stormwater Pollution Prevention Plan (SWPPP) Best Management Practices (BMPs).
- Continue to track and manage waste generated.
- Continue to manage displaced soil per the approved Soil Management Plan (Appendix L of the C/RAWP).

#### 2.1.3 Freshwater Usage, Waste Generation and Management

As of January 31, 2019, the volumes of freshwater used for remedy construction and waste streams generated from remedy construction (starting on October 2, 2018) are as follows:

 Approximately 619,000 gallons of freshwater was used, of which an approximate 2 percent was for pilot boring/well installation and general construction activities (e.g., CHQ access road work) and 98 percent was for fugitive dust suppression.



- Approximately 45.1 cubic yards of drill cuttings were generated from well drilling and geotechnical investigation. Of those, approximately 1.3 cubic yards are clay. Drill cuttings are stored in 55-gallon drums or roll-off bins with closed tops. Samples are collected for characterization and analyzed in accordance with the Soil Management Plan.
  - Three 55-gallon drums containing drill cuttings from the Pipeline F geotechnical investigation; two soil bins containing drill cuttings from MW-L; one soil bin containing drill cuttings from pilot borings at IRZ-20, IRZ-23, and MW-E; and one soil bin containing drill cuttings from MW-N were sampled and classified as clean soil. The clean soil will be stockpiled at the SPY for reuse onsite.
  - Five 55-gallon drums containing clay collected from the Pipeline F geotechnical investigation were also sampled and classified as clean soil. The clay drums are stored at the SPY, separate from the other clean soil. PG&E is awaiting DOI's direction on the management of clay.
  - There has been no off-site disposal of displaced soil to date.
- Approximately 37,434 gallons of wastewater were generated from drilling operations. At each drilling location, the wastewater is initially stored in a 3,000-gallon 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. Once a frac tank is full, its contents will be characterized and managed in accordance with the approved Waste Management Plan (Appendix R of the C/RAWP) and the final disposition will be reported in the monthly progress reports.
  - One wastewater frac tank was sampled in December 2018. Analytical results indicated that the wastewater is of acceptable quality for disposal at the Compressor Station evaporation pond #4.
     Target discharge date is early February 2019.
- Approximately 78 cubic yards of general construction waste and 24 cubic yards of recyclables were generated and transported to Republic Services in Lake Havasu City for disposal and management.
- Sanitary waste in portable toilets that is hauled offsite as needed.

#### 2.1.4 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, 2019, a total of 48 health and safety training sessions were held and 218 employees and contractors received the training. Of those, in January 2019, three sessions were conducted and eight 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, 2019, a total of 47 WEAT sessions were conducted and 252 employees and contractors received the training. Of those, in January 2019, five sessions were conducted and nine 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 training roster.
- 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, 2019, a total of
  7 FCR training sessions were conducted and 33 employees and contractors received the training. No
  FCR training sessions were conducted in January 2019.
- Training records are kept electronically and at the temporary construction trailers at the SPY. The
  records are available upon request.



#### 2.1.5 Status of Work Variance Requests

There was no request for work variance in January 2019. See Table 2-2 for 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.

#### 2.1.6 Use of Future Activity Allowance

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

#### 2.1.7 Issues Encountered and Actions Taken to Rectify Issues/Problems

- As reported in the December 2018 monthly progress report, the available space within the current maximum construction footprint is not adequate for construction activities in several locations. These locations include Pipeline C along segments C1-C3 and just south of the BNSF railroad bridge, Pipeline C jack-and-bore pit locations on the east and west side of National Trails Highway (NTH), an area east of MW-G, the transition between Bat Cave Wash and the access road up to MW-M, and the area just south of the rip-rap inside the jurisdictional wash. Pursuant to the General Management Measure # 16 of the Programmatic Biological Agreement (PBA) (CH2M, 2014), PG&E is currently seeking approvals from BLM, USFWS, and CDFW for work outside of the designated work area (i.e., the designated maximum construction footprint). Note that all construction work is still being conducted inside the Area of Potential Effects (APE) and the SEIR Project Area.
- On January 10, 2019, a Remedial Transportation Services (RTS) truck driver was attempting to load an empty 40-cubic-yard roll-off bin. Upon setting up to lift the roll-off bin onto the truck rails, a 1-inch hydraulic hose ruptured at the rear of the truck, resulting in approximately ½ pint of oil contacting surface soil. The operator stopped the loading activity, placed a drip pan/visqueen underneath the leak, and called his supervisor. The spilled material was cleaned up in about 10 minutes, and approximately 1 ½ gallons of affected soil was placed into a 5-gallon bucket. Absorbent pads were placed into a plastic trash bag. The affected soil and absorbent pads will be disposed of off-site.
  - Corrective action to prevent recurrence RTS crews will inspect equipment more regularly.
- The drill rig at MW-B (floodplain) experienced extended downtime (from January 4 through 9) due to a battery issue. Replacement parts were installed, and the drill rig was returned to service.
- The remedy construction project has been temporarily shut down since January 16, 2019 due to PG&E's filing for bankruptcy. Updates will be provided by PG&E to the agencies, Tribes, and stakeholders as to the project status.

#### 2.1.8 Key Personnel Changes

PG&E added Kristina Bonnett to the PG&E onsite team in January 2019.

#### 2.2 Communication with the Public

PG&E does not have any key communications with the public that occurred in January 2019.

#### 2.3 Planned Activities for Next Six Weeks

The planned activities for next six weeks (February 4 to March 16, 2019) include the following:

- Remobilization to site during the week of February 4, 2019.
- Well installation activities:
  - Complete installation of wells MW-N, MW-F, MW-B, MW-G, and MW-D.
  - Start drilling at MW-W.
  - Complete site preparation at MW-M and IRZ-27.



- Complete well installation at IRZ-20 and IRZ-27.
- Non-well construction activities:
  - Complete access road to the CHQ.
  - Perform clearance and grading at the CHQ.
  - Install perimeter fence at the SPY.
  - Conduct pre-characterization of soil along planned pipeline alignment and in infrastructure location within AOCs.
  - Continue grubbing and clearing along Pipeline C alignment (C1, C2, C3, C4, C5, C7, C8, C9, C10, C17).
  - Continue to conduct noise and dust monitoring and inspection of SWPPP BMPs.
  - Continue to log and manage waste generated.
  - Continue to manage displaced soil per the approved Soil Management Plan.

**Attachment F** 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).

#### 2.4 Construction Schedule Review

Phase 1 of the groundwater remedy construction started on October 2, 2018. Table 2-3 presents a summary of the percent completeness for key construction activities as of January 31, 2019. PG&E will continue to look for opportunities to optimize the construction workflow and schedule.

### 2.5 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 adhoc compliance reports/emails, PG&E has included validated data in each monthly progress report starting with the November 2018 report (see **Attachment G**).

#### 3. References

California Department of Toxic Substances Control (DTSC). 1996. Corrective Action Consent Agreement (Revised), Pacific Gas and Electric Company's Topock Compressor Station, Needles, California. EPA ID No. CAT080011729. February 2.

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United States Department of the Interior (DOI). 2013. Remedial Action/Remedial Design Consent Decree (CD) between the United States of America and Pacific Gas & Electric Company. Case 5:13-cv-00074-BRO-OP, Document 23. Entered November 21.

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.

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#### Table 2-1 Summary of Environmental Release-To-Constructions (ERTCs) Issued to Contractors

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

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
Non-Well ER	TCs	
1	Initial mobilization activities at the Construction Headquarters (CHQ), Soil Processing Yard (SPY), and three staging areas (#9 Parking area off I-40, #18 MW-20 Bench, and #23 Transwestern Bench). Scope included installation of temporary construction trailers, portable generators, SWPPP BMPs, construction signages, and temporary construction fencing, as well as equipment staging and truck inspections.	August 10, 2018
Addendum 1 to ERTC #1	Scope included setup of wastewater and freshwater storage tanks at MW-20 Bench, improvement of the access road at the CHQ, installation of perimeter fence at the SPY, and grading at SPY.	September 21, 2018
Addendum 2 to ERTC #1	Scope included grading for drill rig setup at IRZ-20.	October 4, 2018
Addendum 3 to ERTC #1	Scope included geotechnical investigation in the footprint of the future Carbon Amendment building at the MW-20 Bench.	October 9, 2018
Addendum 4 to ERTC #1	Scope included the installation of a temporary handrail along the walkway from the MW-20 Bench to the floodplain.	December 28, 2018
2	Scope included the installation of the temporary construction water system and construction water tanks at Area #25 Route 66 Welcome Sign.	September 28, 2018
3	Scope included the installation of the Public Information Trailer, a fugitive dust sign, an information kiosk, and a construction delivery sign at the northwest corner of Park Moabi Road and National Trails Highway (NTH).	September 4, 2018
4	Scope included the installation of a truck containment pad at the TCS evaporation ponds and maintenance of the access road to the ponds.	September 24, 2018
6	Scope included the geotechnical investigation along Pipeline F alignment (on the Compressor Station entrance road).	October 3, 2018
7	Scope included the installation of traffic control along the southern end of NTH per the Traffic Control Plan.	September 17, 2018
9	Scope included the transplantation and planting of sensitive plants.	November 9, 2018
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
12	Scope included non-intrusive site preparation work for the brine tanks containment upgrade on the MW-20 Bench (per Work Variance Request #1, see Table 2-2). A forthcoming addendum to this ERTC will be issued to include the actual upgrade activities.	January 10, 2019
Well ERTCs		
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  Note that an ERTC walk with Tribes/agencies

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#### Table 2-1 Summary of Environmental Release-To-Constructions (ERTCs) Issued to Contractors

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

ERTC No.	Brief Description of Covered Areas and Scope of Authorized Activities	Issue Date
		occurred on December 20, 2018
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
51	Scope included the site setup, drilling, testing, and demobilization at MW-B in the floodplain.	December 10, 2018
Addendum to ERTC #5I	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
5p	Scope included the site setup, drilling, testing, and demobilization at MW-G along NTH.	January 14, 2019

#### Note:

ERTC 8 (Wastewater Management), ERTC 10 (Potholing to pre-characterize soil along select pipelines), and ERTC 50 (Installation of MW-X/Y') are under development.

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

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

WVR No.	Brief Description of Work Variance Request	Approval Dates
1	This WVR addressed PG&E's proposed modification to the brine tanks containment for use by the remedy, specifically:	DOI approved WVR #1 on June 22, 2018
	Upgrade the existing lined containment to concrete - The original synthetic liner material has degraded from exposure to UV light, heat, and abrasion and must be replaced. PG&E proposed to replace the synthetic-lined containment (including K-rails) with a concrete containment to support the groundwater remedy. The concrete color will be desert tan, and information on this proposed concrete color will be submitted to the agencies for review. The proposed concrete material will be similar to the material of the truck lane in the final remedy design (see Appendix E of the Final Basis of Design Report (CH2M, 2015a),* Section 033 00, Cast-In-Place Concrete).	DTSC approved WVR #1 on July 5, 2018
	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.	
2	PG&E proposed to relocate the tie-in point for remedy construction water to an aboveground location inside TCS and below the TCS Water Storage Tanks. This is to eliminate the risk of damaging the existing pressurized 6-inch water line and to avoid any interference with PG&E Gas Operations control of the Station's water supply. The WVR addressed this relocation, specifically:	DOI/DTSC approved WVR #2 on August 29,
	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.	2018
	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.	
3	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:	DOI/DTSC approved WVR #3 on January 4,
	<ul> <li>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.</li> </ul>	2019
	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.	

#### Note:

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

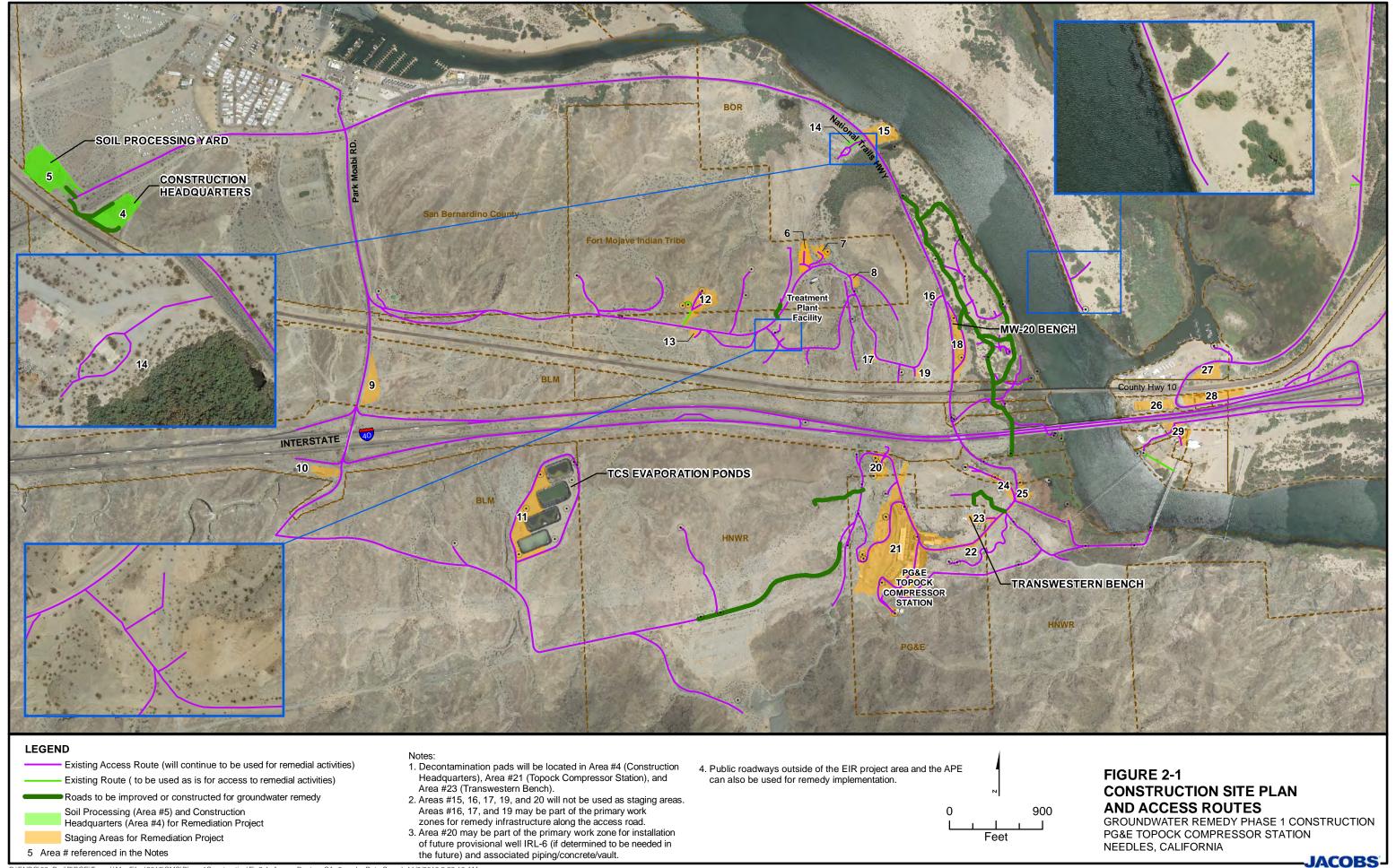
#### Table 2-3 Summary of Percent Completeness of Key Construction Activities

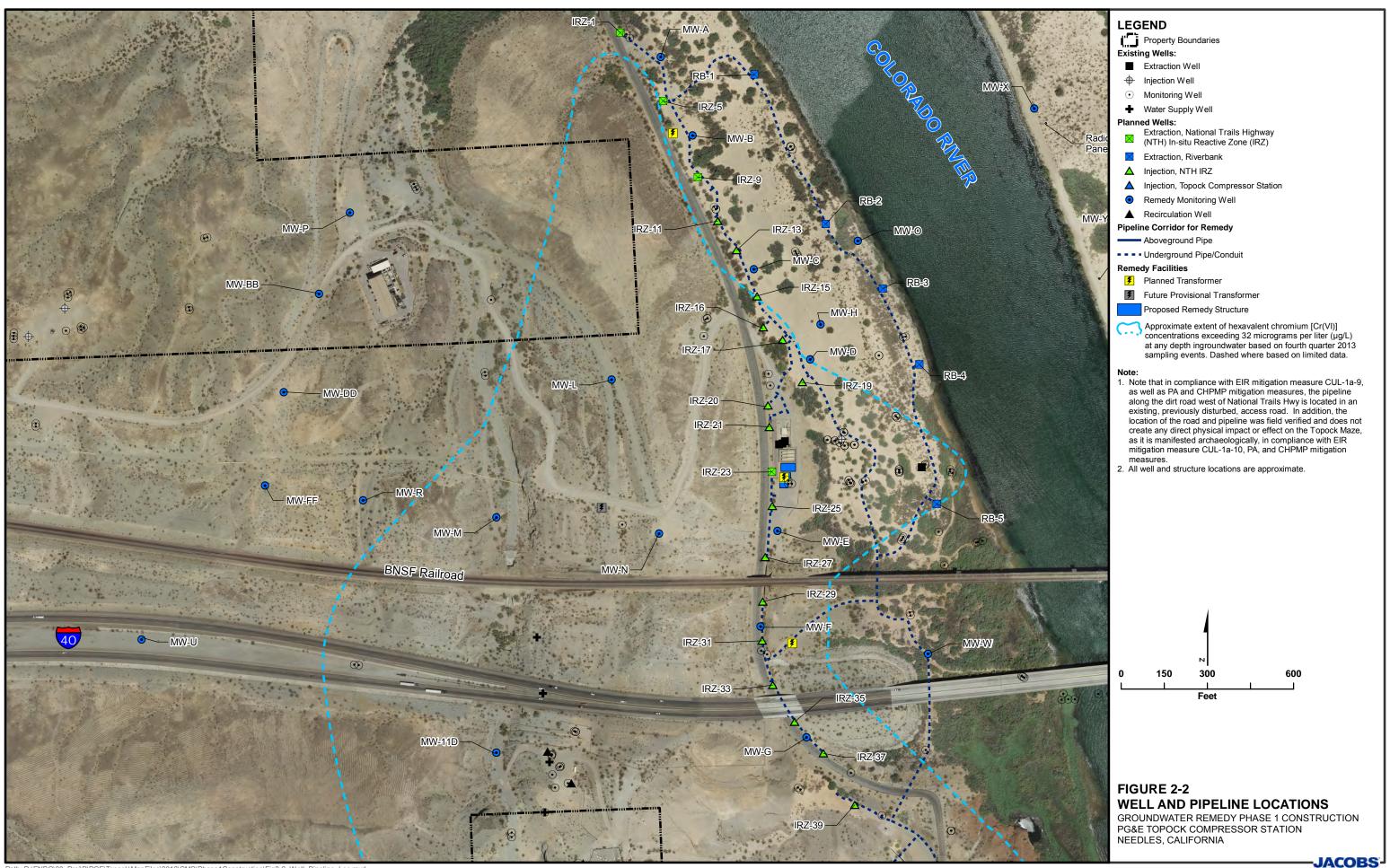
January 2019 Monthly Progress Report for the Final Groundwater Remedy Construction and Startup PG&E Topock Compressor Station, Needles, California

Activity	% Complete	Current Status of Construction Activities (as of January 31, 2018)
Project signage & Public Information Office	100%	Complete.
Staging Area 9 setup	100%	Complete.
Staging Area 23 setup	100%	Complete.
Staging Area 18 setup	100%	Complete.
Temporary construction offices at Soil Processing Yard	100%	Complete.
Soil Processing Yard setup for construction staging	100%	Complete.
National Trails Highway lane closure and traffic control installation	100%	Complete.
Temporary construction water line	100%	Complete
TCS Ponds concrete containment pad	100%	Complete
Construction Headquarters access road	85%	Site prep, excavation, conduit installation, subgrade backfill, and concrete placement complete. Available for use after concrete cure period
MW-B	Not Available	Drilling in progress.
MW-E	100%	Complete
MW-F	95%	Well construction complete. Develop in February.
MW-L	95%	Well construction complete. Develop in February.
MW-N	Not Available	Drilling in progress.
IRZ-9 pilot boring	100%	Complete.
IRZ-15 pilot boring	100%	Complete
IRZ-13 pilot boring	100%	Complete
IRZ-20 pilot boring	100%	Complete
IRZ-21 pilot boring	100%	Complete
IRZ-23 pilot boring	100%	Complete
IRZ-25 pilot boring	100%	Complete

AX0206192356BAO Tables-5

**Figures** 

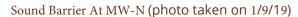




## Attachment A Photographs

#### PL01 Photo Log Photo Sheet







Pumping Off Wastewater at MW-N (photo taken on 1/10/19)



Potholing in C5 segment (photo taken on 1/14/19)



Vegetation Clearance Along C5 (photo taken on 1/10/19)

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Load out vegetation (photo collected on 1/15/19)



Mobilization of equipment onto floodplain (photo taken on 1/08/18)



Placement of electrical conduits near CHQ access road (photo taken on 1/7/19)



Pour slurry concrete at CHQ access road (photo taken on 1/7/19)



MW-F Drilling (photo taken on 1/7/19)



MW-B Drilling (photo taken on 1/9/19)

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# Attachment B Available Boring Logs and Groundwater Sample Results from Well Drilling

Table B-1. Groundwater Sampling Results for January 2019

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

Location	Sample ID	Sample Date	Depth Interval (ft bgs)	Total Dissolved Chromium (μg/L)	Hexavalent Chromium (μg/L)
MW-L	MW-L-VAS-76-81	10/06/18	76 - 81	34	31
MW-L	MW-L-VAS-106-111	10/09/18	106 - 111	0.697 J	0.84
MW-L	MW-L-VAS-141-146	10/10/18	141 - 146	< 0.13 U	< 0.033 U
MW-L	MW-L-VAS-181-186	10/20/18	181 - 186	3.8	3.3
MW-L	MW-L-VAS-218-223	10/21/18	218 - 223	68	66
MW-L	MW-L-VAS-261-266	10/22/18	261 - 266	0.284 J	< 0.17 U
MW-F	MW-F-VAS-52-57	01/06/19	52 - 57	Data not yet available	2500
MW-F	MW-F-VAS-82-87	01/07/19	82 - 87	Data not yet available	110
MW-F	MW-F-VAS-97-102	01/07/19	97 - 102	Data not yet available	1800
MW-F	MW-F-VAS-112-117	01/08/19	112 - 117	Data not yet available	740
MW-E	MW-E-VAS-52-57	11/05/18	52 - 57	7800	7000
MW-E	MW-E-VAS-82-87	11/06/18	82 - 87	190	200
MW-E	MW-E-VAS-02-07	11/06/18	112 - 117	3000	3100
MW-E	_	11/07/18	137 - 142	7900	7300
	MW-E-VAS-137-142				
MW-E	MW-E-70-121418	12/14/18	70 (WD)	Data not yet available	3000
MW-E	MW-E-142-121418	12/14/18	142 (WD)	4500	4200
MW-B	MW-B-VAS-27-32	01/06/19	27 - 32	Data not yet available	7.7
MW-B	MW-B-VAS-47-52	01/09/19	47 - 52	Data not yet available	< 0.17 U
MW-B	MW-B-VAS-67-72	01/09/19	67 - 72	Data not yet available	< 0.17 U
MW-B	MW-B-VAS-102-107	01/10/19	102 - 107	Data not yet available	< 0.17 U
MW-B	MW-B-VAS-142-147	01/15/19	142 - 147	Data not yet available	< 0.17 U
IRZ-9	IRZ-9-VAS-27-32	12/03/18	27 32	120	120
IRZ-9	IRZ-9-VAS-47-52	12/04/18	47 52	< 0.13 U	< 0.033 U
IRZ-9	IRZ-9-VAS-62-67	12/04/18	62 67	< 0.13 U	< 0.033 U
IRZ-9	IRZ-9-VAS-182-187	12/11/18	182 187	< 0.13 U	< 0.17 U
IRZ-9	IRZ-9-VAS-207-212	12/13/18	207 212	< 0.13 U	< 0.17 U
IRZ-9	IRZ-9-VAS-232-237	12/13/18	232 237	0.811 J	< 0.17 U
IRZ-9	IRZ-9-VAS-264-269	12/15/18	264 269	< 0.13 U	< 0.17 U
IRZ-9	IRZ-9-VAS-276-281	12/16/18	276 281	< 0.13 U	< 0.17 U
IRZ-9	IRZ-9-VAS-292-297	12/18/18	292 297	< 0.13 U	< 0.17 U
IRZ-13	IRZ-13-VAS-32-37	11/17/18	32 - 37	170	220
IRZ-13	IRZ-13-VAS-57-62	11/18/18	57 - 62	< 0.13 U	< 0.17 U
IRZ-13	IRZ-13-VAS-102-107	11/19/18	102 - 107	< 0.13 U	< 0.17 U
IRZ-13	IRZ-13-VAS-142-147	11/19/18	142 - 147	< 0.13 U	< 0.17 U
IRZ-13	IRZ-13-VAS-180-185	11/27/18	180 - 185	230	190
IRZ-13	IRZ-13-VAS-197-202	11/28/18	197 - 202	< 0.13	< 0.83
IRZ-13	IRZ-13-VAS-224-229	11/28/18	224 - 229	< 0.13	< 0.83
IRZ-13	IRZ-13-VAS-237-242	11/29/18	237 - 242	< 0.13 U	< 0.17 U

#### Table B-1. Groundwater Sampling Results for January 2019

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

Location	Sample ID	Sample Date	Depth Interval (ft bgs)	Total Dissolved Chromium (μg/L)	Hexavalent Chromium (µg/L)
IRZ-15	IRZ-15-VAS-32-37	11/01/18	32 - 37	13	13
IRZ-15	IRZ-15-VAS-62-67	11/02/18	62 - 67	< 0.65 U	0.459 J
IRZ-15	IRZ-15-VAS-102-107	11/03/18	102 - 107	< 0.65 U	< 0.17 U
IRZ-15	IRZ-15-VAS-132-137	11/04/18	132 - 137	0.228 J	< 0.17 U
IRZ-15	IRZ-15-VAS-162-167	11/05/18	162 - 167	3400	3200
IRZ-15	IRZ-15-VAS-182-187	11/06/18	182 - 187	130	140
IRZ-15	IRZ-15-VAS-222-227	11/07/18	222 - 227	< 0.13 U	< 0.17 U
IRZ-20	IRZ-20-VAS-51-56	10/20/18	51 - 56	130	150
IRZ-20	IRZ-20-VAS-82-87	10/21/18	82 - 87	< 0.13 U	< 0.033 U
IRZ-20	IRZ-20-VAS-112-117	10/22/18	112 - 117	< 0.13 U	< 0.17 U
IRZ-20	IRZ-20-VAS-131-136	10/23/18	131 - 136	< 0.13 U	< 0.17 U
IRZ-20	IRZ-20-VAS-173-178	10/24/18	173 - 178	< 0.13 U	< 0.83 U
IRZ-21	IRZ-21-VAS-52-57	12/15/18	52 57	Data not yet available	97
IRZ-21	IRZ-21-VAS-77-82	12/16/18	77 82	Data not yet available	1.1
IRZ-21	IRZ-21-VAS-112-117	12/16/18	112 117	Data not yet available	< 0.17 U
IRZ-21	IRZ-21-VAS-132-137	12/17/18	132 137	Data not yet available	< 0.17 U
IRZ-21	IRZ-21-VAS-147-152	12/18/18	147 152	4000	3600
IRZ-23	IRZ-23-VAS-67-72	12/01/18	67 72	86	85
IRZ-23	IRZ-23-VAS-92-97	12/01/18	92 97	0.453 J	< 0.033 U
IRZ-23	IRZ-23-VAS-122-127	12/02/18	122 127	2100	2000
IRZ-23	IRZ-23-VAS-139-144	12/02/18	139 144	3400	3000
IRZ-25	IRZ-25-VAS-52-57	12/05/18	52 57	4300	3500
IRZ-25	IRZ-25-VAS-67-72	12/05/18	67 72	750	620
IRZ-25	IRZ-25-VAS-92-97	12/06/18	92 97	140	130
IRZ-25	IRZ-25-VAS-112-117	12/11/18	112 117	< 0.13 U	< 0.17 U
IRZ-25	IRZ-25-VAS-147-152	12/11/18	147 152	3800	3600
IRZ-25	IRZ-25-VAS-162-167	12/13/18	162 167	3000	3000

#### Notes:

 $\mu$ g/L = micrograms per liter

ft bgs = feet below ground surface

VAS = vertical aquifer sampling

WD = sample from well development, depth noted is from bottom of screen

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J = The analyte was positively identified; however, the associated numerical value is an estimated concentration only

U = The analyte was analyzed for but not detected at the analyte method detection limit indicated

AR	CADIS Design & Consultance for natural and built assets	Вс	ring	Log	Sheet	: 1 of	7
Date Started			e Elevat		Boring No.	: MW-F	
-	eted: 01/16/2019		ıg (NAD	•			
Drilling Co.:			y (NAD8	•	Client: PG&E To	-	<b>D</b>
Drilling Meth	_	Total [ Boreho	-	131 ft bgs	Location: Groundw		Phase I
Driller Name Drilling Asst:	•	<u>ez</u> Depth			Needles	CA	
Logger:	•	Sampl		_	Proiect Number: RC	 2000753.0051	1
Editor:		Sampl					
Weather:	Overcast/rainy co	ld to cold Conve	rted to V	Vell: ⊠ Yes 🗌 No			
Depth (ft) Recovery (in)	Sieve Groundwate Sample ID Sample ID		USCS Class	Description		Drilling Notes	Drilling Fluid
- 1 - 2 3 3		SW-SI		(5.0 - 7.5') Well graded gravel with silt and sa (7.5YR 4/3); granules to very large pebbles, a some very fine to very coarse grained sand, a little silt; trace cobbles, angular to subround; of (7.5YR 4/3); fine grained to coarse grained, a granules to very large pebbles, angular to subangular; trace silt; trace clay; do oxide staining; areas with some increasing an areas with more oxide staining, and areas with (10.3'); dark brown/ black 1" layer, possibly changular to subangular to sub	avel (SW-SM); brown angular to subround; angular to subangular; dry; no odor; no staining avel (SW-SM); brown angular to subround; and bround; trace cobbles, ry to moist; no odor; iron and decreasing gravel and han o oxide staining.  Travel (SW-SM); brown arcoal, coal or graphite.	(5.0') 12" outer casing depth	(0.0 - 131.0') No water used
Notes: US	SCS = Unified Soil Class	sification System, ¡	pb = Pa	arts per Billion.			
BORIN							
SOIL							

A	RC	ADIS	Design & Consultancy for natural and built assets		Во	rin	g Log		Sheet:	2 of	7
Date Sta		-			Surface			Bori	ng No.:	MW-F	
	-	ted: <u>01/16/</u> 2			Northin		·				
Drilling C		<u>Casca</u>			Easting	•	•		PG&E Top		Dhasail
Drilling No.			Drilling Vasquez		Total D	-	131 ft bgs meter: 6/10 in		<u>Groundwa</u> <u>Needles C</u>	ter Remedy ^	Pnase I
Drilling A			ya/ O. Flore				: Water: 52 ft bgs		iveedies C	Λ	
Logger:	.001.		el Andrews		-		_	Proiect Nu	mber: RC0	00753.0051	
Editor:			<i>AcGrane</i>		Samplir	-		,			
Weather	τ:	<u>Overca</u>	ast/rainy colo	to cold (	Conver	ted to	Well: ⊠ Yes ☐ No				
Depth (ft)	Kecovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
21					SW-SM		(22.0 - 30.5') Well graded sand with silt (SW-S fine grained to very coarse grained, an <mark>gu</mark> lar to				
23 24 25	114						granules to large peobles, angular to subangu trace mica; dry to moist; no odor				
262627272727272727					SW-SM					(21.0 - 31.0') Rough drilling	
											(0.0 - 131.0') No water usec
31	120						(30.5 - 37.0') Silty sand with gravel (SM); (7.5) to very coarse grained, angular to subround; spebbles, angular to subangular; trace cobbles clay; no odor; iron oxide staining	some granules	to large		no water used
33333434343535					SM						
36											
38	72				SM		(37.0 - 46.0') Silty sand with gravel (SM); (7.5l to very coarse grained, angular to subangular large pebbles, angular to subangular; little silt to subangular; trace clay; dry to moist; no odo staining	; and granules ; trace cobbles	to very , angular		
Notes:	US	CS = Unified	d Soil Classi	fication Sys	tem, p	pb = l	Parts per Billion.				
SE S											
JOS CONTRACTOR OF THE PROPERTY											

MAK	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet:	3 of	7
Date Starte	d: <u>01/03/</u>	2019		Surface	Elevation:	N/A	Bor	ina No	: <u>MW-F</u>	
Date Compl	eted: 01/16/	2019		Northin	g (NAD83):	N/A		ing ito.	. 10100 1	
Drilling Co.:	<u>Casca</u>	de		Easting	(NAD83):	N/A	Client:	PG&E To	pock	
Drilling Meth					•	131 ft bgs	Location:		<u>ater Remedy</u>	Phase I
Driller Name	·				le Diameter:		-	Needles (	CA	
Drilling Asst		aya/ O. Flore		-	o First Water					
Logger:		el Andrews		-	ng Method:	10 ft Core Barrel	Project Nu	ımber: <u>RC</u>	000753.0051	
Editor:		<u>McGrane</u>		-	ng Interval:	Continuous	-			
Weather:	<u>Overca</u>	ast/rainy colo	to cold	Conver	ted to Well:					
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
41 42 42 43 44				SM					(42.0 - 45.0') Drill rods chattering	
4548 46 47				SM	coarse	48.5') Silty sand (SM); brown (7.5YR 4 e grained, angular to round; little granul ur to subangular; little silt; trace clay; tra	es to large pel	obles,		
48 49 50 51 52120	MW-F-SS- 47-52			SM	very fii granul trace r	52.0') Silty sand with gravel (SM); red- ne grained to very coarse grained, ang- es to large pebbles, angular to subang- nica; dry to moist; no odor	ular to subrour ular; some silt;	nd; some trace clay;	(52.0') Approximate	(0.0 - 131.0') No water used
53545556575850	MW-F-SS- 52-57	MW-F-VAS- 52-57-EB (2500 ppb)		SM	3/3); fi	58.0') Silty sand with gravel (SM); dar ne grained to very coarse grained, ang le small to large pebbles, angular to su ining	ular to subrou	nd; some	depth to water table	
58 60 59 	MW-F-SS- 57-62			SM	very fir silt; litt	61.0') Silty sand with gravel (SM); red ne grained to very coarse grained, ang le granules to large pebbles, angular to nica; dry to moist; no odor; weak ceme	ular to subrour s subangular; I	nd; some	(58.0 - 61.0') Core dry	
	SCS = Unifie	d Soil Classi	fication Sy	stem, p	pb = Parts pe	er Billion.		I	•	
				·	•					

9/	ARC	ADIS	Design & Consultancy for natural and built assets		Во	ring	g Log		Sheet:	4 of	7
Date S		-			Surface			Bor	ing No.:	MW-F	
	•	eted: <u>01/16/</u>			Northing	- '	•				
Drilling Drilling	•	Casca	ae Drilling		Easting Total D			Client:	PG&E Top	роск ater Remedy	Phase I
Driller	-		Vasquez		Borehol	-	<del>-</del>	Location.	Needles C	-	i ilase i
Drilling		· · · · · · · · · · · · · · · · · · ·	aya/ O. Flore				Water: 52 ft bgs				
Logge			el Andrews		Samplir			Project Nu	ımber: <u>RC</u>	000753.0051	
Editor:		-	<u>McGrane</u>		Samplir						
Weath	ier:	<u>Overca</u>	ast/rainy colo		Conver	ted to	Well: ⊠ Yes □ No		T		1
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
61	60	MW-F-SS-			SM					(58.0 - 61.0') Core dry	
	60	57-62					(61.0 - 69.5') Silty sand with gravel (SM); dark 3/3); very fine grained to very coarse grained,				
62							some silt; little granules to very large pebbles, wet; no odor				
63											
64		MW-F-SS-									
65	60	62-67									
00					SM						
66											
1 02/06										(65.0 - 68.0') Drill rods	
67										chattering	
30927 PI											
68											
ARCAL											
69		MW-F-SS-				M					
		67-72					(69.5 - 82.0') Silty sand with gravel (SM); redd				(0.0 - 131.0')
70							little granules to large pebbles, angular to sub no staining				No water used
71							The Starring				
10000 1 1											
72	100.8										
- FILES					•						
73							4 4				
oloni 74											
PET BOX		MW-F-SS-					(74'); some granules to very large pebbles, an trace cobbles, angular to subround; no stainin	ngular to suba	ngular;		
75		72-77			SM		,g	J, 122200 II			
# 10M											
76											
OCUME!											
77											
I SERS	60	MW-F-SS-									
్డ్	00	77-82									
%E 10b											
្ន <mark>ី 80</mark> Notes:	. 110	CS = Unific	d Soil Classi	fication Sys	tom r	nh - 「	Parts per Billion.				
JINOLES.	. 08	oo – onne	u Juli Ulassi	ncauon Sys	кен, р	hn – t	מונס אבו טווווטוז.				
SOIL B(											

9/	٩RG	CADIS	Design & Consultancy for natural and built assets		Во	rin	g Log		Sheet:	5 of	7
Date S		-			Surface			Boring	No.:	MW-F	
- I			_ Northing (NAD83): N/A								
1			Easting	•	, -		&E Top		<u> </u>		
Drilling Driller	-		<u>Drilling</u> Vasquez		Total D	•	131 ft bgs meter: 6/10 in	Location: Gro	oundwat edles C <i>i</i>	-	Phase I
Drilling			•				t Water: <u>52 ft bgs</u>	ine	eules C/	Η	
Logge	-		el Andrews		-			Project Number	er: RC0	00753 0051	
Editor:			McGrane		Samplir	-		r rojoot riarrib	or. <u>1100</u>	00700.0001	
Weath		-	ast/rainy colo		•	•					
	2		1	.p G							
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	Code	USCS	Description		]	Orilling Notes	Drilling Fluid
81	60	MW-F-SS- 77-82			SM						
		77-02									
82						••••	(82.0 - 87.5') Well graded sand with silt and gr	ravel (SW-SM): rec	ldich		
-	-						brown (5YR 4/3); very fine grained to very coal round; some granules to large pebbles; little s	arse grained, angul	ar to		
83	-						angular; trace mica; wet; no odor	iit, trace cobbles,			
-	-										
84	1	MM/ F 00	MW-F-VAS-								
	60	MW-F-SS- 82-87	82-87-EB (110 ppb)		SW-SM						
85	1		( -11 /								
86	-										
00	1										
88					SM		(87.5 - 88.0') Silty sand with gravel (SM); redd	lish brown (5YR 4/3	3); ome		
SADIS						silt; little granules to large pebbles, angular to trace mica; wet; no odor; no staining					
~ 89							(88.0 - 95.0') Silty sand with gravel (SM); redd				
0.00.00 L		MW-F-SS-					<ul> <li>very fine grained to very coarse grained, angu granules to very large pebbles, angular to sub</li> </ul>				
90		87-92					clay; trace mica; wet; no odor; no staining				(0.0 - 131.0')
											No water used
9091											
					SM						
92	120										
	-										
93	-										
90191	-										
<u>94</u>										(90.0 - 98.0') Soft drilling	
DRAF	1	MW-F-SS- 92-97					4				
<u>95</u>	-						(95.0 - 99.0') Silty sand with gravel (SM); dark	reddish brown (5)	/R		
g oe −	†						3/3); very fine grained to very coarse grained, some granules to very large pebbles, angular	to subround; little	ular;		
96	-						cobbles, angular to subround; little silt; wet; no	o odor			
	1										
KANEI					SM						
96 97 98											
OSERS - CO	120	MW-F-SS-	MW-F-VAS- 102-107								
ర్ క్ర <b>99</b>	120	97-102	(1800 ppb)				1 1				
T TOPA					SM		(99.0 - 102.0') Silty sand with gravel (SM); red very fine grained to very coarse grained, angu	ılar to round; some			
100							granules to large pebbles, angular to subangu				
Notes:	: US	SCS = Unifie	d Soil Classi	fication Sys	tem, p	pb =	Parts per Billion.				
L BOR											
os											

ARCADIS Design & Consultancy for natural and built assets					Во	ring	ı Log		Sheet:	6 of	7
Date Started: <u>01/03/2019</u>					Surface			Bori	ng No.:	MW-F	
	•	eted: <u>01/16/</u>			Northin		•				
1 -	Drilling Co.: <u>Cascade</u> Drilling Method: <u>Sonic Drilling</u>				Easting Total D	•	,		PG&E Top	ock ter Remedy	Dhoo I
Driller			Vasquez			•	neter: 6/10 in		Needles C	-	Priase i
Drilling			aya/ O. Flore	Z			Water: 52 ft bgs		11000100 0	, ,	
Logge	-		el Andrews		-		_	Project Nu	mber: RC0	000753.005	1
Editor:			McGrane		Samplii	-					
Weath	er:	<u>Overca</u>	ast/rainy colo	to cold	Conver	ted to	Well: ⊠ Yes □ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
101_		MW-F-SS- 97-102	MW-F-VAS- 102-107 (1800 ppb)		SM		trace mica; wet to moist; no odor				
102											
							(102.0 - 111.0') Silty sand with gravel (SM); day				
_103_							granules to large pebbles, angular to subangu moist; moderate cementation				
-	120										
_104_											
		MW-F-SS- 102-107									
105											
106_											
02/05/1					SM					(102.0 -	
[ 107_					SIVI					111.0') Dry	
927 PLC											
108											
ARCADI:										(107.0 -	
109_	48									111.0') Drill rods chattering	
JA 440		MW-F-SS- 107-112								Tods chattering	(0.0 - 131.0')
3ASE FG											No water used
K DATABASE FC					\						
TOPOC							(111.0 - 118.0') Sandy silt with gravel (ML); da moderate brown(5YR 3/4); low plasticity; some	ark reddish bro e very fine to v	own / very coarse		
112_						1111	grained sand, angular to round; little granules angular to subangular; wet; no odor	to large pebbl	es,		
ILES/0.											
_113_											
1 1000										(111.0 -	
_114_	72	MM/ F 00	MW-F-VAS-							117.0') Soft drilling	
115		MW-F-SS- 112-117	112-117-EB (740 ppb)		ML					ariiirig	
113			· · · · /								
116											
MENTS											
_117											
CGRAN											
_118_					+	<del>-</del>	(118.0 - 120.0') Silty gravel with sand (GM); da	ark reddish bro	own /		
S C:\US	120	MW-F-SS- 117-122				500	moderate brown(5YR 3/4); granules to very lar to round; some very fine to very coarse graine	rge pebbles, s d sand, subar	subangular ngular to		
¥119					GM	149	round; little silt; trace cobbles, angular to suba mica; wet; no odor	ngular; trace o	clay; trace		
120											
Notes:	US	CS = Unifie	d Soil Classi	fication Sy	stem, p	pb = P	arts per Billion.				
IL BORIII											
SO											

9/-	\R(	CADIS	Design & Consultancy for natural and built assets		Во	ring	J Log		Sheet	7 of	7
Date S					Surface			Bor	ina No	: <u>MW-F</u>	
Date C	Comple	eted: <u>01/16/2</u>	2019		Northin	g (NAE	083): <u>N/A</u>			. <u></u>	
1			Easting	(NAD	•	Client:	PG&E To	-			
Drilling			<u> Drilling</u>		Total D		•	Location:		<u>ater Remedy</u>	Phase I
	•					neter: <u>6/10 in</u>		Needles	CA		
Drilling			-		-		Water: 52 ft bgs				
Logge			Andrews					Project Nu	ımber: <u>RC</u>	000753.0051	
Editor:					Samplin						
Weath		<u>Overca</u>	st/rainy cold		Conver	led to	Well: ⊠ Yes □ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
121		MW-F-SS- 117-122			SM		(120.0 - 122.0') Silty sand (SM); dark reddish fine grained to very coarse grained, subangul little granules to large pebbles, angular to sub moist to wet; no odor	ar to round; so	ome silt;		
122											
_122_							(122.0 - 131.0') Topock - Competent Bedrock sand with gravel (SM); dark reddish brown (2.	- conglomera	te; Silty		
123							grained to very coarse grained, angular to sub	oround; some	granules to		
120_	100						very large pebbles, angular to subangular; so odor; moderate cementation; portions of core	me siit; iittie ci are friable.	lay; dry; no		
_124_	120										
										(122.0 - 127.0') Drill	
_125_										rods chattering	
<u> </u>											(0.0 - 131.0')
_126_				Topock -							No water used
				Competen						(122.0 -	
_127				Bedrock - conglomera						131.0') Dry	
_128_											
<u> </u>										(407.0	
_129_	48									(127.0 - 131.0') Drill	
										rods chattering	
_130											
131						Riskinski.	] End of Boring at 131.0 'l	ogs.			
400											
_132_											
133_											
_133_											
134_											
135_											
_136_											
_137											
_138_											
139_											
140		.00	10 " 0" -:			, -	D:11:				
Notes:	US	US = Unitied	Soil Classif	ication Sy	stem, p	pp = P	arts per Billion.				

<b>AR</b> (	CADIS	Design & Consultancy for natural and built assets		Во	ring l	Log		Sheet:	1 of	10
Date Started				Surface	Elevatio	n: <u>N/A</u>	Bor	ing No.:	: MW-Ls	
Date Comple					g (NAD83		_			
Drilling Co.:	<u>Casca</u>				(NAD83)		_ Client:	PG&E To	•	DI I
Drilling Meth		<u>Drilling</u>		Total De	-	184 ft bgs	_ Location:		ater Remedy	Phase I
Driller Name					le Diamet		_	Needles (	JA	
Drilling Asst:		ellmantel / T.		-		ater: 76 ft bgs	— Duniant Ni		000750 0054	<u> </u>
Logger:		el Andrews			ng Metho		_ Project N	umber: RC	<u>000753.0051</u>	
Editor:		McGrane			ng Interva ted to We		_			
Weather:	Sunny	cool to warn		Conven	led to vve	ell: X Yes No				T
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
1					(CB	0.0 - 66.0'); Only the approximate screen is oring Log MW-Ld for lithology.	ntervals were lo	gged see	(1.0 - 12.0') Drill rods chattering	
13 14 15 16 17 18 19 20									(12.0 - 18.0') Rough drilling (18.0 - 26.0') Drill time 51.34 minutes, voids forming.	
	CS = Unifie	d Soil Classif	fication Sv	stem. U	= not det	ected above the laboratory repo	rting limit. pr	bb = Parts r	per Billion. Wa	ater
samples wer							g, PF			
Editipios WCI	2 2211001001	. J.II. IVIVV-LU	_ 5.5156.							

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g			Sheet:	2 of	10	
	Started				Surface	Elevation:	N/A		Bor	ina No ·	MW-Ls		
Date Completed: <u>12/20/2018</u>				Northin	g (NAD83):	N/A			ilig ito	<u>IVIVV-LS</u>			
Drilling	g Co.:	<u>Cascac</u>	de		Easting	(NAD83):	N/A		Client:	PG&E Top	oock		
Drilling	g Meth	od: <u>Sonic [</u>	Drilling		Total D	epth:	184 ft bgs		Location:	Groundwa	ater Remedy	Phase I	
Driller	Name	: <u>Dan O'</u>	Mara		Boreho	le Diameter:	<u>10 in</u>		-	Needles C	CA		
Drilling	g Asst:		<u>llmantel / T. \</u>	Wolfe	-	o First Water	-						
Logge			l Andrews		-	ng Method:	10 ft Core Ba	rrel	Project Nu	ımber: <u>RC</u>	000753.0051		
Editor		·	<u>//IcGrane</u>			ng Interval:	Continuous						
Weath	ner:	<u>Sunny</u>	cool to warm	l	Conver	ted to Well:		No					
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class		Description			Drilling Notes	Drilling Fluid	
21	-												
22	-										(18.0 - 26.0')		
23											Drill time 51.34 minutes, voids forming.		
24	-										(24.0') Heavy rig chatter		
25	_												
26													
27													
28											(28.0') Voids forming, rough drilling 31 to		
29	-										36 ft bgs.		
30	_												
	_										(26.0 - 36.0') Drill time		
32											10:35 minutes.		
33													
34													
-													
35													
36													
37											(37.0') Rough drilling		
_38_											(36.0 - 56.0') Drill time 73:45 minutes, rough drilling.		
39											(38.0 - 40.0') Voids forming		
40 Notes	: 115	SCS = Unified	Soil Classif	ication Sv	stem II	= not detecte	ed above the la	boratory reporti	na limit pp	b = Parts n	er Billion W	ater	
			rom MW-Ld I		2.0111, 0	4010011	- 45575 tilo la	- 31 atoly 10 porti	g, pp	- 1 GI (0 P	or Sanon. W		

SOIL

ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring I	Log		Sheet:	3 of	10
Date Started	: <u>12/03/2</u>	2018			Elevation		Bor	ina No	: MW-Ls	
Date Comple	eted: <u>12/20/</u> 2	2018		Northing	g (NAD83	3): <u>N/A</u>		ing ito.	. <u>IIIIV LS</u>	
Drilling Co.:	Casca	de		Easting	(NAD83)	): <u>N/A</u>	Client:	PG&E To	pock	
Drilling Meth	od: <u>Sonic I</u>	Drilling		Total De	epth:	184 ft bgs	Location:	Groundwa	ater Remedy	Phase I
Driller Name	: <u>Dan O'</u>	'Mara		Borehol	e Diamet	ter: <u>10 in</u>		Needles (	CA	
Drilling Asst:	E. Hue	<u>llmantel / T. \</u>	Wolfe	Depth to	o First Wa	ater: <u>76 ft bgs</u>				
Logger:	<u>Michae</u>	el Andrews		Samplir	ng Method	d: <u>10 ft Core Barrel</u>	Project Nu	umber: <u>RC</u>	000753.0051	
Editor:	<u>Sean N</u>	<u>/////////////////////////////////////</u>		-	ng Interva					
Weather:	<u>Sunny</u>	cool to warm	1	Convert	ted to We	ell: 🗵 Yes 🗌 No				
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
41									(43.0') Rough drilling	
181   191   190									(36.0 - 56.0') Drill time 73:45 minutes, rough drilling.	
## TOPOOKUDRAFT BORING LOGS/GINT FILES/GI									(45.0 - 65.0') Voids forming	
6 POSE TOPACK CUUSERSISHICGRANEIDOCUMENTSIPS 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2									(60.0') Heavy	
0				stem, U	= not det	ected above the laboratory reporting	g limit, pp	b = Parts p	per Billion. Wa	ater
samples wer	e collected f	rom MW-Ld I	borehole.							
SOIL										

ARCADIS	Design & Consultancy for natural and built assets	Boring Log		Sheet: 4 of 10
oate Started: <u>12/03/</u>		_ Surface Elevation: <u>N/A</u>	Bor	ing No.: <u>MW-Ls</u>
ate Completed: 12/20/		_		
rilling Co.: <u>Casca</u> rilling Method: <u>Sonic</u>	de Drilling	_	Client: s Location:	PG&E Topock Groundwater Remedy Phase
riller Name: <u>Sonic</u>	•	_ Total Deptil <u>164 it bg</u> : _ Borehole Diameter: _ <u>10 in</u>	<u>s</u> Location.	Needles CA
	ellmantel / T. Wolfe	<del></del>		Noodico O/
•	el Andrews		<u>e Barrel</u> Project No	umber: RC000753.0051
ditor: <u>Sean I</u>	McGrane	_ Sampling Interval: <u>Continuo</u>	us	
/eather: <u>Sunny</u>	cool to warm	Converted to Well: X Yes	☐ No	
Depth (ft) (in) Sieve Sample ID	Gronndwater Sample ID Sample ID Sample ID	USCS Code USCS Class	Description	Drilling Notes Drilling
		SM grained to coarse grained to coarse grained to coarse grained pebbles, angular, trace (67') yellowish brown granules to very large to round; trace clay:	and with gravel (SM); brown (10YR 4/3) rained, subangular to subround; some galar to subangular; little silt; little clay; trace mica; dry to moist; no odor no / moderate yellowish brown(10YR 5/4 ge pebbles, angular to round; little cobb; little mica; dry to moist; no odor raded sand with silt and gravel (SW-SM)	granule to ace  4); little lles, angular  (66.0 - 70.0')  (b); dark  Voids forming
		SW-SM  (70.5') brown (10YF)  round; trace cobbles  (72.0 - 78.5') Silty s.	PYR 4/4); fine grained to very coarse grad; some granule to large pebble, angula to round; little silt; trace counded; little mica; dry to moist  R 4/3)(2/); little granule to large pebble, as, angular to round	angular to
		very large pebble, a	rse grained, subangular to round; some angular to round; some silt; little cobbles ay; little mica; dry to wet and; trace clay	
_76	MW-L-VAS-	granule to very large cobbles, subangula	rown / dark yellowish brown(10YR 4/2); e pebble, angular to round; some silt; tr r to subround; trace clay; trace mica; we s and very large pebbles, water table. crease in fines.	ace Approximate
_78 63	76-81 (31 ppb)	(78'); 6" lens with in	crease in fines.	(76.5 - 81.0') Drill rods
	(0.640)	GW-GM grayish brown / darl	raded gravel with silt and sand (GW-GI k yellowish brown(10YR 4/2); granules i llar to round; little cobbles, angular to ro grained sand, subangular to round; tra	M); dark to very ound; little

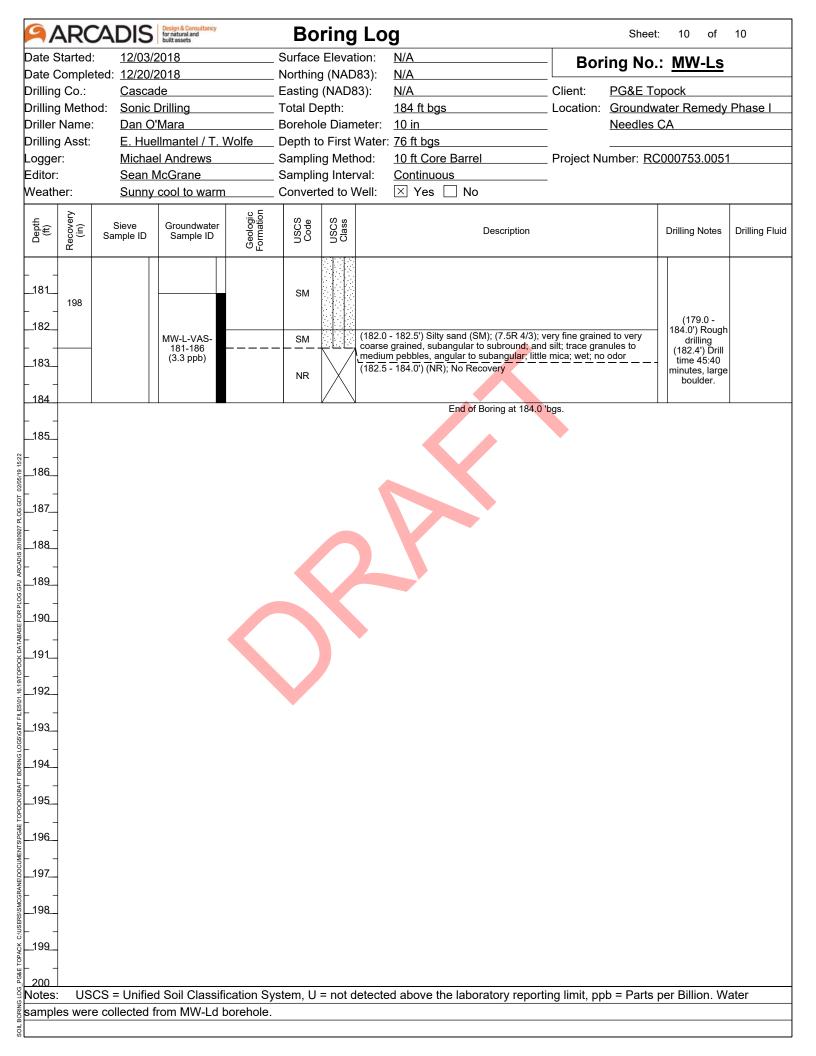
	CADIS	Design & Consultancy for natural and built assets	BO	rıng	Log		Sheet:	5 of	10
ate Starte			Surface		· · · · · · · · · · · · · · · · · · ·	Bor	ing No.	: MW-Ls	
•	leted: <u>12/20/</u>		Northing	- `	•				
rilling Co.			Easting			Client:	PG&E To	•	
rilling Met			Total De	•	184 ft bgs	Location:		ater Remedy	Phase I
riller Nam		D'Mara	Borehol			-	Needles (	CA	
rilling Ass		ellmantel / T. Wo	•		Vater: 76 ft bgs	. D!4 NI		000750 0054	
ogger: :ditor:		el Andrews	Samplin	-		Project Ni	ımber: <u>RC</u>	000753.0051	
		McGrane	Samplin	_		-			
Veather:	Sunny	cool to warm	Convert	ea to v	veii:		ľ		
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation USCS Code	USCS Class	Description			Drilling Notes	Drilling Flu
_81		MW-L-VAS- 76-81 (31 ppb)	GW-GM					(76.5 - 81.0') Drill rods chattering	
					(81.3 - 86.0') (NR); Not recovered, boulder at	81.25 jamme	d up core		
_82					barrel.			(80.0 - 84.0') Rough drilling	
4								Rough drilling	
_8363									
4			NR						
_84			INIX						
4									
_85									
4									
_86	_				700 0 0 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
					(86.0 - 94.5') Sandy silt with gravel (SM); (7.5 to very coarse grained, subangular to round;	some silt; little	ne grained granule to		
_87					very large pebble, angular to subangular; tra	ce clay; wet			
_88									
_89									
_90									
			SM						
_91 <sub>108</sub>									
				/				(87.0 - 96.0')	
_92								Soft drilling	
_93									
_94									
_95					(94.5 - 96.0') Silty sand (SM); brown (7.5YR coarse grained, angular to subround; and silt				
			SM		to large pebbles, subangular to round; trace subangular; little mica; wet; no odor				
_96									
	]			<u></u> /	(96.0 - 156.0') (NR); iron oxide staining; Only intervals were logged see Boring Log MW-Lo	the approximation	ate screen		
_97				$  \setminus  $	valo word logged dee borning Log MW-LC	o. minology.			
				$  \setminus /  $					
_98			100	$\mid \bigvee \mid$				(96.0 - 101.0')	
			NR					Drill rods chattering	
_99				$ \ /\  $					
_55_				/ \					
100				/ \					
	SCS = Unifie	ed Soil Classifica	ation System, U	= not d	etected above the laboratory report	ing limit, pp	b = Parts p	per Billion. Wa	ater
		from MW-Ld bo			· · ·				
						· 			

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g			Sheet	:: 6 of	10
	Started					Elevation:	N/A		Bor	ina No	: <u>MW-Ls</u>	
Date (	Comple	eted: <u>12/20/</u> 2	2018		Northin	g (NAD83):	N/A			mg no.	<u>IVIVV LS</u>	
Drilling	g Co.:	Casca	de		Easting	(NAD83):	N/A		Client:	PG&E To	opock	
Drilling	g Meth	od: <u>Sonic I</u>	<u> Drilling</u>		Total D	epth:	184 ft bg	S	Location:	Groundw	<u>/ater Remedy</u>	Phase I
	Name					le Diameter:				Needles	CA	
	g Asst:		<u>llmantel / T. \</u>	<u>Volfe</u>	-	o First Water	-					
Logge			el Andrews			ng Method:	<u>10 ft Cor</u>		Project N	umber: <u>R0</u>	0000753.0051	
Editor			<u>//cGrane</u>			ng Interval:	Continuo					
Weath	ner:	Sunny	cool to warm		Conver	ted to Well:	× Yes	□ No			T	T
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class		Description			Drilling Notes	Drilling Fluid
101	-										(96.0 - 101.0') Drill rods chattering	
102_	_											
103												
104												
105												
106								X				
_107_												
108			MW-L-VAS-				X					
109			106-111 (0.84 ppb)									
110	-				NR							
_111_											(102.0 - 126.0') Soft	
<u> </u>											drilling	
_112_												
_113_	_											
	_											
114												
_115_	_											
_116_	]											
-												
117	-											
118	-											
119_												
120												
Notes					stem, U	= not detecte	ed above t	he laboratory repo	rting limit, pp	b = Parts	per Billion. W	ater
sampl	es wer	e collected f	rom MW-Ld b	orehole.								

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g			Sheet:	7 of	10
	Started					Elevation:	N/A		Bor	ina No	: MW-Ls	
Date (	Comple	eted: <u>12/20/2</u>	2018		Northing	g (NAD83):	N/A			ilig ito.	. <u>IVIVV-L3</u>	
Drilling	g Co.:	<u>Cascac</u>	de			(NAD83):	N/A		Client:	PG&E To	pock	
Drilling	g Meth	od: <u>Sonic [</u>	Drilling		Total De	epth:	184 ft bgs		Location:	Groundwa	ater Remedy	Phase I
Driller	Name	: <u>Dan O'</u>	Mara		Borehol	e Diameter:	<u>10 in</u>		•	Needles (	CA	
Drilling	g Asst:	E. Hue	<u>llmantel / T. \</u>	Wolfe	Depth to	o First Water	: <u>76 ft bgs</u>					
Logge			l Andrews			ng Method:	10 ft Core Barr	el	Project Nu	umber: <u>RC</u>	000753.0051	1
Editor		' <u>-</u>	<u>IcGrane</u>			ng Interval:	Continuous		•			
Weath	ner:	<u>Sunny</u>	cool to warm	1	Convert	ted to Well:	Yes □ No	0				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	SOGE	USCS Class		Description			Drilling Notes	Drilling Fluid
 _121_	-											
122	-											
123	_										(102.0 - 126.0') Soft	
124	-										drilling	
 _125_	_											
126												
127												
128	-											
129_												
_130_					NR							
_131_												
_132_												
_133_											(126.0 - 146.0') Soft drilling	
_134_	_											
_135_	-											
_136_	-											
_137_	-											
_138_	   											
_139_	   											
140 Notes	. 119	CS = Unified	Soil Classifi	ication Sv	stem II	= not detects	ed above the lab	oratory reporti	na limit pp	h = Parte r	er Billion \\/	ater
			rom MW-Ld l		otorri, U	not detect	og above tile labi	oratory report	g, pp	– ι αιι <b>ο</b>	JOI DIIIIOII. VV	4101

<b>AR</b>	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet:	8 of	10
Date Started	l: <u>12/03/</u>	2018		Surface	Elevation:	N/A	Bor	ina No	: MW-Ls	
Date Comple	eted: <u>12/20/</u>	2018		Northin	g (NAD83):	N/A		iiig ito.	. <u> 25</u>	
Drilling Co.:	<u>Casca</u>	de		Easting	(NAD83):	N/A	_ Client:	PG&E To	pock	
Drilling Meth	od: <u>Sonic</u>	Drilling		Total De	epth:	184 ft bgs	Location:	Groundwa	ater Remedy	Phase I
Driller Name	: <u>Dan C</u>	'Mara		Borehol	e Diameter:	<u>10 in</u>		Needles (	CA	
Drilling Asst	<u>E. Hue</u>	ellmantel / T. \	Wolfe	Depth to	First Water:	76 ft bgs	_			
Logger:	<u>Micha</u>	el Andrews		Samplir	ng Method:	10 ft Core Barrel	Project Nu	umber: RC	000753.0051	
Editor:	<u>Sean l</u>	McGrane		Samplir	ng Interval:	Continuous	_			
Weather:	Sunny	cool to warm	1	Convert	ed to Well:					
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
		MW-L-VAS- 141-146 (<0.033 U ppb)							(126.0 - 146.0') Soft drilling	
1. 1000CNODAYFT BORING LOGOSGIMT HE ESGNT, 16: 191/10POCK DATABASE FOR PLOG GBT AND GB				NR					(146.0 - 156.0') Drill rods chattering, 15:05 minutes to drill.	
156				GM	granule to very cobble:	- 160.0') Silty gravel with sand (GM); es to very large pebbles, angular to subcoarse grained sand, angular to subres, angular to subangular; trace clay; we little very fine to very coarse grained send; wet; weak cementation; increase est.	bangular; som ound; some sil et	le very fine t; trace	(156.0 - 166.0') Soft driling, drill time (25:31) minutes, lost core barrel down hole.	
	CS = Unifie	d Soil Classif	ication Sys	tem, U	= not detecte	d above the laboratory report	ing limit, pp	b = Parts p	per Billion. W	ater
<u> </u>		from MW-Ld I		, =·		, r	J 711F			
Öl Ö										
σ <u>L</u>										

(160.0 - 163.5) Silly sand with gravet (SM); reddish brown (GYR 4/3); granular to allow public angular to authorous; lists sitt, little clay; little mice; wet, no odor; weak comentation.  (163.0 - 169.0) Soll time; wet, no odor; weak comentation and time (26.3) International class sitt, little clay; little mice; wet, no odor; weak comentation.  (163.0 - 160.0) Soll time; (26.3) International class sitt, little clay; little mice; wet, among time and (SM); dark graylash rown / dark abangular; some very line to very coarse grained sand, angular to subangular; some with the subangular; some with gravet (SM); brown (10YR 4/3); wery before and sand.  (167.5 - 170.0) Sity sand with gravet (SM); brown (10YR 4/3); wery mice; wet, among the subangular; some with title clay; trace mice; wet; among comentation decrease grained sand, angular to subangular; some with little clay; trace mice; wet; modernational common sit; little clay; trace mice; wet; modernational common sit; little clay; some sit; little clay; some sit; little clay; some sit; little clay; some sit; little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some with little clay; wet; some grained sand, angular to subangular; some w	9/	<b>ARC</b>	ADIS	Design & Consultancy for natural and built assets		Во	ring	յ Log		Sheet:	9 of	10
Another products and the product of	Date S	tarted	12/03/	2018				tion: N/A	Bori	ina No.:	MW-Ls	
Trilling Method:  Sonic Drilling  Total Depth:  184 ft bgs. Location: Groundwater Romedy Phase I  Needles CA  Project Number:  Needles CA  Sampling Method:  Octiverted to Well:  Needles CA  Project Number:  Needles CA  Number:  Needles CA  Number:  Needles CA  Number:  Needles CA  Number:  Number:		-					- '	,				
Sampling Asstrograms	_					-	•	, -		•		
infling Asst: E. Hualimental / T. Wolfe Sept McGrane Sean McGrane Sampling Method: In Care Barrel Project Number: RC000753.0951  Sample D				•					Location:		•	Phase I
Sampling Interval:  Sunny cool to warm  Converted to Well:  Sunny converted to well warm  Converted to Well:  Sunny converted									-	Needles C	Α	
Sear McGrane   Sampling Interval: Continuous	•					•		•	Doginal sa sa Nice		00750 0054	
Peach   Peac						-	-		Project Nu	imber: RCC	100753.0051	
Section   Sect						•	•		•			
161   162   163   164   165   167	vvcatii		Odrilly	T COOI to Wall		T	T	Tes I No				
SM   Small	Depth (ft)	Recovery (in)			Geologic Formation	nscs Code	USCS	,			Drilling Notes	Drilling Flui
163.5 - 167.5) Silty gravel with sund (SM), dark grayles brown f dark control to subangular; some very fine for very coarse grained and, angular to subangular; some very fine for very coarse grained and, angular to subangular; some very fine for very coarse grained and, angular to subangular; some very fine for very coarse grained and, angular to subangular; some very fine for very coarse grained angular to subangular; some very fine dark yellowish brown (10YR 4/3); some silt; some mica; wet; strong comentation; decrease in granulus to very large pebbles, angular to subrounded; some grained to very coarse grained, angular some very fine object sace boulders; trace clay; some mica; wet; strong comentation; decrease in granulus to very large pebbles, angular to subangular; some very fine object; sace boulders; trace clay; some mica; wet; strong comentation; decrease in granulus to very large pebbles; and with grawel (SM); brown (10YR 4/2); some silt; title clay; wet; strong comentation; decrease in granulus to very large pebbles; and with grawel (SM); brown (10YR 4/2); some silt; title clay; wet; strong comentation; decrease in granulus to very large pebbles; and with grawel (SM); brown (75YR 5/3); trace clay; some mica; wet; increase in silt.  172. 173. 198. 174. 175. 182.0); Silty sand with grawel (SM); brown (75YR 5/3); very large pebbles; and gravel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75YR 5/3); very large pebbles; and with grawel (SM); brown (75Y	 _161_							very fine grained to very coarse grained, angu- granule to large pebble, angular to subround;	ular to round; lì	ittle		
163. 117  164. 165. 167.5) Silty gravel with sand (SM), dark grayes hrown / dark can define, dark for the case of	 _162_					SM						
down hole.    Committee   Comm	_163_	117						VACO E ACT EN Cilla group with a set (CMI) a	Jorle graviah hy	over / dowle	driling, drill time (25:31) minutes, lost	
(166) brown (10YR 4/3); some silt; some mica; wet; strong commentation, decrease in granules to very large pebbles and sand.  (167, 5-170, 10) Silty sand with gravel (SM); brown (10YR 4/3); very fine grained to very coarse grained, angular to subangular; some silt; little clay, trace mica; wet; no odor  (170, 0-177.5) Silty gravel with sand (GM); brown (10YR 8/3); gravel with sand (GM); brown (10YR 8/3); trace mica; wet; no odor  (171, 0-177.5) Silty gravel with sand (GM); brown (10YR 8/3); gravel with sand (GM); brown (10YR 8/3); trace clay; trace mica; wet; no obbless; trace boulders, trace boulders, trace boulders, trace obstangular; some silt; little clay, wet; strong commentation boulders, trace clay, some mica; wet; strong obstance; trace boulders, trace clay, some mica; wet; strong obstance; trace boulders, trace clay, some mica; wet; strong obstance; trace boulders, trace clay, some mica; wet; strong obstance; trace boulders, trace clay, some mica; wet; strong obstance; trace boulders, trace clay, some mica; wet; strong obstance; trace distribution obstance; trace	_164							yellowish brown(10YR 4/2); granules to large subangular; some very fine to very coarse gra	pebbles, angu	ılar to	down hole.	
167. 170 Silly sand with gravel (SM), brown (10YR 4/3), very (1687.5-170 N) Silly sand with gravel (SM), brown (10YR 4/3), very (1687.5-170 N) Silly sand with gravel (SM), brown (10YR 4/3), very (1687.5-170 N) Silly sand with gravel (SM), brown (10YR 4/3), very (1687.5-170 N) Silly sand with gravel (SM), brown (10YR 4/3), very (1687.5-170 N) Silly sand with gravel for subnounded; some granules to very large pebbles, angular to subangular; some silt; little clay, trace mica, wet; no odor (10YR 4/3), very (10YR 4						GM						
fine grained to very coarse grained, angular to subrounded; some of clay; trace mica; wet; no odor  (470.0 - 177.5) Sity gravel with sand (GM); brown (10YR 5/3); granules to very large pebbles, angular to subangular; some very fine to very coarse grained sand, angular to subangular; some very fine to very coarse grained sand, angular to subangular; some very fine to very coarse grained sand, angular to subangular; some very fine to very coarse grained sand, angular to subangular; still still; trace cobbles; trace clay; some mica; wet; strong comentation  (174) dark grayish brown / dark yellowish brown(10YR 4/2); some silt; little clay; wet; strong comentation, decrease in granules to very large pebbles and sand.  (176) brown (7.5YR 5/3); trace clay; little mica; wet; increase in silt. (175.0 - 179.0)) Rough drilling  (177.5 - 182.0) Silty sand with gravel (SM); brown (7.5YR 5/3); very me grained to very coarse grained, angular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very large pebbles, angular to subangular; some small to very la	_160 - _167									d sand.		
day, trace mica, wet, no odor  (770 - 177.5') Silty graval with sand (GM); brown (10YR 5/3); gravules to very large pebbles, angular to subangular; some very fine to very coarse grained sand, and the subangular; some silt; little elit; trace cobbies; trace boulders; trace clay; some mica; wet; strong  (174) dark grayish brown / dark yellowish brown(10YR 4/2); some silt; little elit; trace cobbies; trace boulders; trace clay; some mica; wet; strong cementation  (174) dark grayish brown / dark yellowish brown(10YR 4/2); some silt; little elay; wet, strong cementation, decrease in granules to very large pebbles and sand.  (176) brown (7.5YR 5/3); trace clay; little mica; wet, increase in silt.  (175.0 - 179.0') Rough drilling  (177.5 - 182.0') Silty sand with gravel (SM); brown (7.5YR 5/3); very moderate cementation  (179.0 - 184.0') Rough drilling  (179.0 - 184.0') Rough drilling  (179.0 - 184.0') Rough drilling	 _168_						5°D(	fine grained to very coarse grained, angular to	o subrounded;	some		
171	 _169_					SM			bangular; some	e silt; little		
To very coarse grained sand, angular to subangular; little slit; trace coardinates and sand, angular to subangular; little slit; trace coardinates and sand, angular to subangular; little slit; trace coardinates and sand, angular to subangular; some mica; wet; strong cementation  (174') dark gray/sh brown / dark yellowish brown(10YR 4/2); some silt; little clay; wet; strong cementation; decrease in granules to very large pebbles and sand.  (176') brown (7.5YR 5/3); trace clay; little mica; wet; increase in silt.  (175.0 - 179.0') Rough drilling  (177.5 - 182.0') Silty sand with gravel (SM); brown (7.5YR 5/3); very fine grained to very coarse grained, angular; some small to very large pebbles, angular to subangular; some silt; little clay; little mica; wet; moderate cementation  (179.0 - 184.0') Rough drilling  (179.0 - 184.0') Rough drilling  (179.0 - 184.0') Rough drilling	 _170_											
GM  (174) dark grayish brown / dark yellowish brown(10YR 4/2); some silt; little clay; wet; strong cementation; decrease in granules to very large pebbles and sand.  (176) brown (7.5YR 5/3); trace clay; little mica; wet; increase in silt.  (177.5 - 182.0') Silty sand with gravel (SM); brown (7.5YR 5/3); very fine grained to very coarse grained, angular; some small to very large pebbles, angular to subangular; some silt; little clay; little mica; wet; moderate cementation  SM  (179.0 - 184.0') Rough drilling	 _171_ 							to very coarse grained sand, angular to subal cobbles; trace boulders; trace clay; some mic	ngular; little silt			
GM  (174') dark grayish brown / dark yellowish brown(10YR 4/2); some silt; little clay; wet; strong cementation; decrease in granules to very large pebbles and sand.  (176') brown (7.5YR 5/3); trace clay; little mica; wet; increase in silt.  (177.5 - 182.0') Silty sand with gravel (SM); brown (7.5YR 5/3); very fine grained to very coarse grained, angular; some small to very large pebbles, angular to subangular; some silt; little clay; little mica; wet; moderate cementation  SM  (179.0 - 184.0') Rough drilling  (179.0 - 184.0') Rough drilling  (179.0 - 184.0') Rough drilling	_172_											
175_ 176_ 177_ 178_ 178_ 179_ 180  USCS = Unified Soil Classification System, U = not detected above the laboratory reporting limit, ppb = Parts per Billion. Water	_173_ 	198				GM						
177	_174_  _175_							little clay; wet; strong cementation; decrease				
177	 _176_							(176') brown (7.5YR 5/3); trace clav; little mic	a: wet· increas	e in silt		
178.  179.  180.  SM  (177.5 - 182.0') Silty sand with gravel (SM); brown (7.5YR 5/3); very fine grained to very coarse grained, angular; some small to very large pebbles, angular to subangular; some silt; little clay; little mica; wet; moderate cementation  (179.0 - 184.0') Rough drilling  Iotes: USCS = Unified Soil Classification System, U = not detected above the laboratory reporting limit, ppb = Parts per Billion. Water	 _177							(		5110.	179.0') Rough	
179 (179.0 - 184.0') Rough drilling  lotes: USCS = Unified Soil Classification System, U = not detected above the laboratory reporting limit, ppb = Parts per Billion. Water	 _178_ 							fine grained to very coarse grained, angular; pebbles, angular to subangular; some silt; littl	some small to	very large	.5	
180	_179					SM						
											184.0') Rough drilling	
amples were collected from MW-Ld borehole.	Notes:					stem, U	= not	detected above the laboratory reporti	ng limit, ppl	b = Parts p	er Billion. Wa	ater
	sample	es wer	e collected	rom MW-Ld	porenole.							



9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring	Log			Sheet	: 1 of	16
Date S		·			Surface				Bor	ina No.	: <u>IRZ-9 P</u>	ilot
	•	eted: <u>01/03/2</u>			Northin	• •	,		_			
Drilling	-	Casca			Easting				_ Client:	PG&E To	•	
Drilling	-		<u>Drilling</u>		Total De	-	_		_ Location:		<u>ater Remedy</u>	Phase I
Driller					Borehol				-	Needles	CA	
Drilling		-	ner/ J. Cande		-		Water: 25 ft bgs		- 		2000750 005	
Logge			cia / G. Willfo	ord	Samplin	-		Barrel	_ Project Nu	ımber: <u>RC</u>	C000753.005 <sup>2</sup>	]
Editor: Weath			<u>//cGrane</u> cool to warm	<u> </u>	Samplir Convert	•			-			
vveau		Suring	Tool to warm		Conven	Led to	rveii. 🔝 res [	<u> </u>				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class		Description			Drilling Notes	Drilling Fluid
_ 1 1 1 1	6				SP-SM		8/3); very fine grained silt; dry; no staining  (9.5 - 12.0') Silty sand fine grained to fine grained to fine grained to certain to certain the grained the grained to certain the grained to certain the grai	d with gravel (SM); dark rained, angular to subround; dry; and with gravel (SM); street oarse grained, subangular to subrouses, subangular to subrouses, subangular to subrouses, subangular to subrouses, subangular to subrouses.	brown (7.5YR und; some grain no staining	3/4); very nule to	(7.0') loss of core sample during recovery due to very loose sediment	(0.0 - 281.0') No water used
14 15 16 17 18	42				SM							
19 19 	96				SM		fine grained to very c	nd with gravel (SM); stro oarse grained, angular t angular to subround; mo	to subround; so	ome small		
Notes:	US	CS = Unified	Soil Classif	ication Sv	/stem, U	= not	letected above the	e laboratory report	ing limit, pp	b = Parts	per Billion.	
				,	, ,			7	<u> </u>			

AR	CADIS	Design & Consultancy for natural and built assets		Boring Lo	og		Sheet:	2 of	16
Date Starte				Surface Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
•	leted: 01/03/			Northing (NAD83):	N/A	_			
Drilling Co.:				Easting (NAD83):	N/A	_ Client:	PG&E To	-	
Drilling Met		Drilling		Total Depth:	317 ft bgs	_ Location:		ater Remedy	Phase I
Driller Nam		etrone		Borehole Diameter:	-	-	Needles (	CA	
Drilling Ass		mer/ J. Cande		Depth to First Wate	_				
Logger:		<u>rcia / G. Willfo</u>	ord	Sampling Method:	10 ft Core Barrel	_ Project Nu	ımber: <u>RC</u>	000753.0051	
Editor:		<u>McGrane</u>		Sampling Interval:	Continuous	-			
Weather:	Sunny	cool to warm		Converted to Well:	☐ Yes ⊠ No				1
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code USCS Class	Description			Drilling Notes	Drilling Fluid
21	IRZ-9-SS-22- 27			grain	- 34.0') Si <mark>lty s</mark> and with <b>gra</b> vel (SM); bro ed to very coarse grained, subangular t all pebbles, subangular to subround; w	o subround; litt		(25.0') Approximate depth of water table	
28 29 60 30 31 	IRZ-9-SS-27- 32	IRZ-9-VAS- 27-32 (120 ppb)		SM				(32.0') drill stem bolts sheared off when commencing	(0.0 - 281.0') No water used
33 34 35 36204	IRZ-9-SS-32- 37			plasti	- 40.0') Gravelly silt with sand (ML); brocity; some granules to very large pebbleund; little very fine to coarse grained sacobbles, angular to subangular; moist	es, subangular	to	drilling after VAScollection from 27-32' bgs.	
37 38 39 40 Notes: U	IRZ-9-SS-37- 42	d Soil Classif	ingtion Co	ML 000	ed above the laboratory report	ing limit on	h – Darta	oor Billion	
NOIGS. U	JOS – Ullille	u Juli Ciassiii	ication Sy	ratern, U – HUL GELECI	ed above the laboratory report	ing illilit, pp	u – Faits [	pei DilliUH.	

9/	<b>AR</b> (	CADIS	Design & Consultancy for natural and built assets		Во	ring	ı Log		Sheet:	3 of	16
Date S	Started	l: <u>12/02/</u>	2018		Surface	Eleva	tion: <u>N/A</u>	Bor	ina No.:	IRZ-9 P	ilot
	•	eted: <u>01/03/</u>			Northin		•	. —			
Drilling	-	<u>Casca</u>			Easting	•	•	Client:	PG&E Top		
Drilling	-				Total D	-	317 ft bgs	Location:		ter Remedy	<u> Phase I</u>
Driller			etrone		Boreho		· · · · · · · · · · · · · · · · · · ·		Needles C	:A	
Drilling	-		mer/ J. Cande		-		Water: 25 ft bgs				
Logge			cia / G. Willfo	ord	Samplir	-		Project Nu	umber: RCC	000753.005	1
Editor			<u>McGrane</u>		Samplin	-					
Weath	_	Sunny	cool to warm	,	Conver	led to	Well: ☐ Yes ⊠ No				1
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
41 42 43		IRZ-9-SS-37- 42			SM		(40.0 - 43.0') Silty sand with gravel (SM); light fine grained to very coarse grained, subangula granule to small pebbles, angular to subround staining	ar to subround t; little silt; we	d; some t; no		
44 45 46	204	IRZ-9-SS-42- 47			SM		(43.0 - 48.0') Silty sand with gravel (SM); light grained to very coarse grained, angular to sublarge pebbles, subangular to subround; little s	bround; some	granules to		
4848		IRZ-9-SS-47- 52	IRZ-9-VAS- 47-52 (<0.033 U ppb)		SM		(48.0 - 50.0') Silty sand with gravel (SM); light grained to very coarse grained, angular to sub large pebbles, subangular to subround; little s staining	bround; some silt; moist to w	medium to et; no		(0.0 - 281.0') No water use
5151 51 52					GM		granules to very large pebbles, angular to subvery coarse grained sand, angular to subvery cobbles, angular to subround	pround; some	very fine to		No water asset
53 54		IRZ-9-SS-52-									
55	54	57					(54.5 - 68.0') Silty sand with gravel (SM); brow grained to very coarse grained, subangular to to large pebbles, subangular to subround; little staining	subround; litt	le medium		
57585960	102	IRZ-9-SS-57- 62			SM						
Notes	: US	SCS = Unifie	d Soil Classif	ication Sy	vstem, U	= not	detected above the laboratory reporting	ng limit, pp	b = Parts p	er Billion.	
									·		

<b>AR</b>	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet:	4 of	16
Date Started	l: <u>12/02/2</u>	2018		Surface	Elevation:	N/A	Bor	ina No.:	IRZ-9 P	ilot
Date Comple	eted: <u>01/03/2</u>	2019		Northing	g (NAD83):	N/A			<u> </u>	<u></u>
Drilling Co.:	<u>Cascac</u>	de		Easting	(NAD83):	N/A	_ Client:	PG&E Top	ock	
<b>Drilling Meth</b>	od: <u>Sonic [</u>	Orilling		Total De	epth:	317 ft bgs	_ Location:	Groundwa	iter Remedy	Phase I
Driller Name	e: Nick Pe	etrone		Borehol	e Diameter:	<u>6 in</u>	_	Needles C	A	
Drilling Asst	T. Alym	<u>ner/ J. Cande</u>	elaria	Depth to	First Water	25 ft bgs	_			
Logger:	A. Gard	cia / G. Willfo	ord	Samplin	g Method:	10 ft Core Barrel	Project Nu	ımber: RC0	000753.005	1
Editor:	Sean N	/lcGrane		Samplin	ıg Interval:	Continuous	_			
Weather:	<u>Sunny</u>	cool to warm	<u> </u>	Convert	ed to Well:	☐ Yes ⊠ No				
			o lic	(0 =	(O					
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS	Description			Drilling Notes	Drilling Fluid
61	IRZ-9-SS-57- 62 IRZ-9-SS-62- 67	IRZ-9-VAS- 62-67 (<0.033 U ppb)		SM						
	IRZ-9-SS-67- 72				fine gra	77.0') Silty sand with gravel (SM); dar ained to coarse grained, subangular to ebbles, angular to subround; some sil g	subround; so	me small to		(0.0 - 281.0') No water used
73 74 75 76 77	IRZ-9-SS-72- 77			SM						
78 78 79 	IRZ-9-SS-77- 82 SCS = Unified	d Soil Classifi	ication Sy	SM estem, U	grained granul stainin (79') re subang	85.0') Silty sand (SM); reddish brown to coarse grained, subangular to subset to small pebbles, subangular to subrig eddish brown (2.5YR 4/4); very fine gragular to subround; no staining ed above the laboratory report	oround; little sil ound; moist to ained to fine gr	t; trace wet; no ained,	er Billion.	

AP	RC	ADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g			Sheet	: 5 of	16
Date Sta	rted	12/02/2	2018		Surface	Elevation:	N/A		Bor	ina No	: IRZ-9 P	ilot
	•	ted: <u>01/03/</u>	2019			g (NAD83):	N/A			9	<u></u>	<u></u>
Drilling C		<u>Casca</u>			_	(NAD83):	N/A	Clien		PG&E To	-	
Drilling M			Drilling		Total D	•	317 ft bgs	Locat	tion:		ater Remedy	Phase I
Driller Na						le Diameter:	<u>6 in</u>			Needles	CA	
Drilling A	\sst:	-	ner/ J. Cand		-	o First Water	-				200750 005	
Logger: Editor:			cia / G. Willf	ora		ng Method: ng Interval:	10 ft Core Barrel Continuous	Proje	Ct IN	ımber: <u>RC</u>	0000753.0051	
Weather:			McGrane cool to warr	n		ng interval: ted to Well:	☐ Yes ☒ No					
		Odiniy	Coor to warr		T CONVCI	TOU TO VVCII.						
Depth (ft)	(in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description	n			Drilling Notes	Drilling Fluid
81		IRZ-9-SS-77- 82										
82	•				014							
_83_					SM							
	108											
84		IRZ-9-SS-82-										
 85		87										
					014	(85.0 -	86.0') Silty sand (SM); light reddis	sh gray(2.5YF	R 7/1)	; very fine		
98					SM	no stai	ning					
1 02/05						graine	107.0') Silty sand (SM); pinkish g d to fine grained, subangular to su	ibround; little	silt; tr	ace		
g87						granul stainin	e to small pebbles, subangular to	subround; mo	oist to	wet; no		
30927 PL												
88												
- 89_ - 89_												
PLOG.GPJ		IRZ-9-SS-87-										
<u>ٿ</u> 90		92										(0.0 - 281.0') No water used
DATABASE DATABASE												No water used
돌 91												
940PC												
929	96					(92') re	eddish brown (2.5YR 5/4); no stair	nina				
L L L L L L L L L L L L L L L L L L L							, ,	Ü				
BORING LOGS(GINT FIL					SM							
94_												
F		IRZ-9-SS-92-										
<u>8</u> _95_		97										
# 10pc												
96												
96 97												
97												
98												
USERS 1	108	IRZ-9-SS-97-										
<sup>6</sup> 99 '		102										
P												
100	110	CC - I I-::f: -	d Soil Olasai	fination C:	otem !!	not detect	nd above the laboratems	ortina li	it	h - Darta	nor Pillian	
Notes:	US	Co - Unitie	u Soli Classi	ncation Sy	rstem, U	- not detecte	ed above the laboratory rep	oorung iimi	ıı, pp	ы – Parts	per Billion.	
SOIL BC												

9/	ARC	ADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet:	6 of	16
Date S		-				Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
	•	eted: 01/03/				g (NAD83):	N/A				
Drilling	•	Casca			•	(NAD83):	N/A	Client:	PG&E To	-	
Drilling Driller	•		Drilling etrone		Total D	epth: le Diameter:	317 ft bgs 6 in	Location:	Needles (	ater Remedy	Phase I
Drilling			ner/ J. Cand	elaria		o First Water:		-	<u>ineedies (</u>	JA	
Logge		-	cia / G. Willfo		-	ng Method:	10 ft Core Barrel	- Proiect Nu	ımber: RC	000753.0051	1
Editor:			McGrane		-	ng Interval:	Continuous	<b>,</b>			
Weath	er:	<u>Sunny</u>	cool to warn	n	Conver	ted to Well:	☐ Yes ⊠ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
101		IRZ-9-SS-97- 102									
_102_											
-						(102')	pale red (2.5YR 6/2); no staining				
_103_											
-	108				SM						
104		ID7 0 00	IRZ-9-VAS-								
105		IRZ-9-SS- 102-107	102-109 (<0.17 U ppb)								
103_								•			
106_											
T 02/05											
[8]107				<b>L</b>		(107.0	- 127.0') Silty sand (SM); pinkish gray	(5VP 6/2): fine	grained to		
30927 PI						coarse	grained, subangular to subround; little bebbles, subangular to subround; mois	e silt; trace gra	nule to		
108						interbe	edded gravel seams 3-5" thick sparingly	y throughout ir	iterval.		
ARCAL -											
109_		IRZ-9-SS-									
110_		107-112									(0.0 - 281.0') No water used
OCK DATABASE I											No water used
½ _111_											
O40T/0PO											
<sup>6</sup> _112_	102										
- FILES					Ť						
[113											
9 114_					SM						
98 -		IRZ-9-SS- 112-117									
115_		112-117									
_116_											
CUMEN											
SMCGR.											
118	400	IRZ-9-SS-									
ਨੂੰ119	108	IRZ-9-SS- 117-122									
ETOPA											
120		00 11 15	10 "0"	<u> </u>							
Notes:	: US	US = Unifie	a Soil Classi	rication Sy	stem, U	= not detecte	ed above the laboratory report	ing limit, pp	p = Parts բ	oer Billion.	
8											

9/	AR(	CADIS	Design & Consultancy for natural and built assets		Boring Lo	g		Sheet:	7 of	16
Date S					Surface Elevation:	N/A	Bor	ing No.:	IRZ-9 P	ilot
	-	eted: <u>01/03/</u>			Northing (NAD83):	N/A			·-	
Drilling	-	<u>Casca</u>			Easting (NAD83):	N/A	Client:	PG&E Top		DI I
Drilling Driller	-				Total Depth:	317 ft bgs	_ Location:		ter Remedy	Phase I
Drilling			etrone ner/ J. Cande		Borehole Diameter: Depth to First Water		-	Needles C	-А	
Logge		-	cia / G. Willfo		Sampling Method:	10 ft Core Barrel	- Project Nu	ımber: RC0	000753 0051	1
Editor:			McGrane		Sampling Interval:	Continuous	_ 1 10,000110	1111001. <u>1100</u>	700100.000	
Weath			cool to warm		Converted to Well:	☐ Yes ⊠ No	-			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code USCS Class	Description			Drilling Notes	Drilling Fluid
121	108	IRZ-9-SS- 117-122		A D O O	SM (127.0 to coal medium	- 147.0') Silty sand (SM); weak red (1 se grained, subangular to subround; li n pebbles, subangular to subround; m terbedded gravel seams 3-5" thick spa	ttle silt; trace o	granule to staining;		(0.0 - 281.0') No water used
- 135		IRZ-9-SS- 132-137								
5 _ 139 139 140	108	IRZ-9-SS- 137-142								
ြီ Notes:	US	CS = Unifie	d Soil Classif	ication Sys	stem, U = not detecte	ed above the laboratory report	ing limit, pp	b = Parts p	er Billion.	
BORIF										
SOIL										

Date Started:   12/02/2018	9/-	\R(	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet	8 of	16
Date Completed   Diouz2119   Nontring (NAD28)   NiA									Bor	ina No.	: IRZ-9 P	ilot
Drilling Method:   Drilling   Drilling   Drilling   Drilling   Nick Petrone   Sorborlool Diameters   61		•					- , ,		_			<u></u>
Drilling Name:		•				_					-	
Drilling Asst		•		•			•		_ Location:		•	Phase I
Description					-1:-				-	Needles	CA	
Sample   Sample   Interval   Continuous   Sample   Samp	_	-	-			-		_	- Droiget Nu	ımbor: DC	000752 0054	<u> </u>
Sumple   Converted to Well:   Ves   No					<u>ora</u>				_ Project Ni	illiber. <u>RC</u>	000733.003	<u> </u>
Second   S					n	-	-		-			
141	1100.1.					1						
142	Depth (ft)	Recovery (in)			Geologic	USCS	USCS	Description			Drilling Notes	Drilling Fluid
143	 _141_											
143	142											
144	142											
144	143											
144		100				CM						
145	_144_	100				Sivi						
145				IRZ-9-VAS- 142-147								
147	_145_		142-147	(<0.17 U ppb)								
147												
(147.0 - 182.0) Silky sand (SM); reddish brown(2.5YR 5/3); fine grained to very ocase grained to subround; some silt; little day; trace granule to medium pebble, subangular to subround; trace cobbles, subround; moist; no staining (147.0 - 149.5) No core recovered (147.0 - 149.5) No water used (147.0 - 149.5) No core recovered (147.0 - 149.5) No water used (147.0 - 149.5) No core recovered (147.0 - 149.5) No water used (147.0 - 149.5) No core recovered (147.0 - 149.5) No core re	146											
(147.0 - 182.0) Silky sand (SM); reddish brown(2.5YR 5/3); fine grained to very ocase grained to subround; some silt; little day; trace granule to medium pebble, subangular to subround; trace cobbles, subround; moist; no staining (147.0 - 149.5) No core recovered (147.0 - 149.5) No water used (147.0 - 149.5) No core recovered (147.0 - 149.5) No water used (147.0 - 149.5) No core recovered (147.0 - 149.5) No water used (147.0 - 149.5) No core recovered (147.0 - 149.5) No core re	DT 02/											
148	<sup>9</sup> 147_						(147.0	- 182.0') Silty sand (SM); reddish brow	vn(2.5YR 5/3);	fine		1
142	80927						graine	d to very coarse grained, subangular to	o subround; so	me silt;		
2	2 148_						trace o	obbles, subround; moist; no staining	asangalar to o	,		
IRZ-9-SS- 147-152 (0.0 - 281.0) No water used 152 153 154 155 152-157 156 157-162 157-162	ARCA -											1
150	149_		IR7-0-99-									
152	원 150		147-152									(0.0 - 281.0')
152	BASE											No water used
152	151											
TRZ-9-SS-   156	TOPOCI											
TRZ-9-SS-   156	<sup>61</sup> 2152_											
TRZ-9-SS-   156	ILES/01											
TRZ-9-SS-   156	គ្នែ153											
TRZ-9-SS-   156	31008	180				SM						
TRZ-9-SS-   156	154_											
156 157 158 158 179 160	DRAFT -		IRZ-9-SS- 152-157									
	동155											
	98E 1											
	4STN											
	157											
	RANE/L											
	158											
	USERS		IRZ-9-SS-									
	ان		157-162									
Notes: USCS = Unified Soil Classification System, U = not detected above the laboratory reporting limit, ppb = Parts per Billion.	100 I											
Notes: USCS = Unified Soil Classification System, U = not detected above the laboratory reporting limit, ppb = Parts per Billion.			00 - 11 - 17	10-70	E1: C			daham da 11 1 1	:	·	D''''	
	YNotes:	US	US = Unitie	a Soil Classi	rication Sy	rstem, U	= not detecte	ed above the laboratory report	ıng ıımıt, pp	p = Parts	per Billion.	
	OIL BO.											

9/-	\R(	<b>ADIS</b>	Design & Consultancy for natural and built assets		<b>Boring Lo</b>	g		Sheet:	9 of	16
Date S					Surface Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
		eted: <u>01/03/</u>			Northing (NAD83):	N/A	_			
Drilling		<u>Casca</u>			Easting (NAD83):	N/A	_ Client:	PG&E To	-	
Drilling			Drilling		Total Depth:	317 ft bgs	_ Location:		ater Remedy	Phase I
Driller					Borehole Diameter:		_	Needles (	CA	
Drilling		-	ner/ J. Cand		Depth to First Water	_	-			
Logge			cia / G. Willfo		Sampling Method:	10 ft Core Barrel	_ Project Nu	umber: <u>RC</u>	000753.0051	
Editor:			<u>McGrane</u>		Sampling Interval:	Continuous	-			
Weath	er:	Sunny	cool to warn	_	Converted to Well:	☐ Yes ⊠ No				T
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code USCS Class	Description			Drilling Notes	Drilling Fluid
161		IRZ-9-SS- 157-162								
162										
ļ _										
_163_										
	180									
_164_										
-		IRZ-9-SS- 162-167								
165		102 101								
2:47										
166										
<u>-</u>										
<u>9</u> _167										
80927 8										
168										
ARCA										
169_		ID7 0 00								
의 170		IRZ-9-SS- 167-172								(0.0. 201.0!)
					SM					(0.0 - 281.0') No water used
171_										
X - 1 / 1 -										
172_										
1.17	120									
173_										
179										
174_										
FT BOR		IRZ-9-SS-								
* 175_		IRZ-9-SS- 172-177								
ТОРОС										
MENTS										
176										
SRANE	_									
_178_										
WSER.	120	IRZ-9-SS- 177-182								
် နှံ_179_	0	177-182								
E TOP,										
180										
Notes:	US	CS = Unifie	d Soil Classi	tication Sys	stem, U = not detecte	ed above the laboratory report	ing limit, pp	b = Parts p	per Billion.	
JIL BOF										
SC										

9/	\R(	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	og		Sheet:	10 of	16
Date S	Started	: <u>12/02/</u>	2018		Surface	e Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
	•	eted: <u>01/03/</u>				g (NAD83):	N/A	_		<u>'</u>	
Drilling		Casca			_	j (NAD83):	<u>N/A</u>	_	PG&E To	•	
Drilling			Drilling			-	317 ft bgs	_ Location:		ater Remedy	Phase I
Driller		· · · · · · · · · · · · · · · · · · ·	etrone	-1		le Diameter:		-	Needles (	CA	
Drilling		•	mer/ J. Cand rcia / G. Willf		•	o First vvate ng Method:	r: <u>25 ft bgs</u> <u>10 ft Core Barrel</u>	- Project Nu	ımbor: PC	000753 0051	
Logge Editor:			McGrane	oru	-	ng Interval:	Continuous	_ FTOJ <del>e</del> CCINC	illibel. <u>INC</u>	000733.0031	
Weath			cool to warr	 n		ted to Well:	☐ Yes ⊠ No	-			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
181		IRZ-9-SS- 177-182			SM						
_182_						(192)	0 - 186.0') Silty sand (SM); reddish gray	/ pale brown//	SVP 5/2\:		
	120				SM	fine g granu	or roots) Silly salid (Silly), reducing graph rained to coarse grained, angular to still le to medium pebble; trace cobbles; tra composed of Conglomerate and meta-o	bround; some s ice clay; moist	silt; trace		
		IRZ-9-SS- 182-187	IRZ-9-VAS- 182-187								
185		102 101	(<0.17 U ppb)								
12:47											
186							0 - 187.0') Silty sand (SM); weak red (10				
о <sub>107</sub>					SM	to me	coarse grained, suba <mark>ngul</mark> ar to subround dium pebble, subangular to subround; l				
<sup>9</sup> 187							u <mark>nd;</mark> moist; <mark>no staining</mark> 0 - 196.5') Silty gravel with sand (GM); o	dark reddish br	own(2.5YR		
188_						3/3);	sma <mark>ll pebbl</mark> es to small cobbles, angular e, angular; some silt; little very coarse o	; some small to	o large		
CADIS						bΨ () trace	cobbles, angular; trace clay; moist to di I composed of meta-diorite.	ry; moderate c	ementation;		
189_											
PLOG.0		IRZ-9-SS- 187-192									
[ 190_		107-192				Polo					(0.0 - 281.0') No water used
DATABASE											No water used
) 191_						Para					
19/10P					GM					(187.0 -	
192_	120				J.					197.0') Drill rods chattering	
를 - 193_											
193											
194_											
AFT BO		IRZ-9-SS-									
원 195		192-197				5 PJ					
F TOP						[4]					
196						500					
CUMEN					GP	(196.	5 - 197.0') Poorly graded gravel (GP); v	erv pale brown	(10YR		
<u>197</u>					GF	8/3);	granules to very large pebbles, angular; ed sand, angular; little silt; trace boulde	; little fine to ve	ry coarse		
MCGRV						bould	er 0 - 207.0') Silty sand (SM); dark reddish				
198		IRZ-9-SS-				graine	ed to very coarse grained, subangular to small to medium pebble, subround; trac	o subround; so		(197.0 -	
ੀ ਨੂ <b>_199_</b>	120	197-202			SM	liace	oman to modium pennie, subround, llat	oo olay, moist		202.0') Rough drilling	
TOPAC											
200											
Notes:	US	CS = Unifie	d Soil Classi	fication Sy	/stem, U	= not detect	ed above the laboratory report	ing limit, pp	b = Parts բ	per Billion.	
JIL BOR											
й 											

9/-	AR(	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet	: 11 of	16
Date S					•	Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
	•	eted: <u>01/03/</u>				g (NAD83):	N/A	_		<u> </u>	<u></u>
Drilling	-	<u>Casca</u>			-	(NAD83):	N/A	_ Client:	PG&E To	-	
Drilling	-		<u>Drilling</u>		Total D	-	317 ft bgs	_ Location:		ater Remedy	Phase I
Driller			etrone	-1:-		le Diameter:	6 in	_	Needles	CA	
Drilling	-	-	<u>mer/ J. Cand</u> ·cia / G. Willf		-	o First Water ng Method:	: <u>25 π bgs</u> 10 ft Core Barrel	– Droiget Nu	umbor: DC	000753.0051	<u> </u>
Logge Editor:			McGrane	oru	-	ng Interval:	Continuous	_ Project Ni	ullibel. <u>KC</u>	000733.003	
Weath			cool to warr	n	-	ted to Well:	☐ Yes ⊠ No	_			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	on On	USCS	USCS	Description			Drilling Notes	Drilling Fluid
		IRZ-9-SS- 197-202								(197.0 - 202.0') Rough drilling	
_203_											
204_	120				SM						
-		IRZ-9-SS- 202-207									
_205_		202 201									
12:47											
_206											
207											
9 207_						(207.0	- 213.0') Silty sand with gravel (SM); ery fine grained to very coarse grained	dark reddish br	rown(2.5YR		
208						some	ely lifte grained to very coarse grainer silt; <mark>little</mark> granule to large pebble, suba s, su <mark>bro</mark> und; trace clay; moist	ingular to subro	ound; trace		
CADIS						CODDIC	s, subfound, trace day, moist				
g _209_											
PLOG.0		IRZ-9-SS- 207-212	IRZ-9-VAS- 207-212								
<u>E</u> _210_		207-212	(<0.17 U ppb)		SM						(0.0 - 281.0') No water used
ATABASE I											l to trais. ass
211_											
19/10P											
212_	120										
- 15 O13											
213						(213.0	- 220.0') Sandy silt (ML); dark reddish	h brown (2.5YR	R 3/4); low		
214						subrou	ity; some very fine to medium grained and; little granule to medium pebble, s	ubangular to su	to ubround;		
FT BO		IRZ-9-SS-				IIIIIe ci	ay; moist				
원 215_		212-217									
TOPO											
_216_											
COMEN					ML						
217_											
MCGRA											
_218		ID7 0 00									
SUS A	120	IRZ-9-SS- 217-222									
ў <b>_219_</b>											
220											
Notes:	US	CS = Unifie	d Soil Classi	fication Sy	stem, U	= not detecte	ed above the laboratory repor	ting limit, pp	b = Parts	per Billion.	
IL BORIII											
SO											

9/-	\R(	CADIS	Design & Consultancy for natural and built assets		Во	rin	g Lo	g		Sheet	: 12 of	16
Date S	Started	: <u>12/02/</u>	2018		Surface	Elev	ation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
	•	eted: <u>01/03/</u>			Northin			N/A				<u></u>
Drilling	-	<u>Casca</u>			Easting	•	•	N/A	_ Client:	PG&E To	-	
Drilling	-		<u>Drilling</u>		Total D			317 ft bgs	_ Location:		rater Remedy	Phase I
Driller			etrone		Boreho			6 in	_	Needles	CA	
Drilling Logge	-	-	<u>mer/ J. Cand</u> ·cia / G. Willf		Samplin			: <u>25 ft bgs</u> 10 ft Core Barrel	- Project Nu	ımber: PC	0000753.005	1
Editor:			McGrane		Samplin	-		Continuous	_ FIOJECLINI	illibel. IXC	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	I
Weath			cool to warr		Conver	-		☐ Yes ⊠ No	_			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	8	Description			Drilling Notes	Drilling Fluid
		IRZ-9-SS- 217-222					fine gr granul	<ul> <li>- 234.0') Silty sand (SM); dark reddishained to very coarse grained, angular et o medium pebble, subround; trace coolst to wet; no odor; gravel composed</li> </ul>	to subround; a cobbles, subrou	nd silt; little und; trace		
222							횗					
	120											
_224_												
-		IRZ-9-SS- 222-227										
_225_												
000												
_226_												
227_												
Z PLOC					SM							
228												
SCADIS 1												
ਰੂ <u>229</u>												
PLOG.		IRZ-9-SS- 227-232										
្ត្ត230		227 202										(0.0 - 281.0') No water used
ATABA8												
<sup>2</sup> / <sub>0</sub> 231_												
19/TOF												
232_	120											
233_												
115/S5(												
9 234_												
198		IRZ-9-SS-	IRZ-9-VAS-					- 237.0') Sandy silt with gravel (ML); rasticity; some very fine to coarse grain				
235_		232-237	232-237 (<0.17 U ppb)				subrou	und; little granule to medium pebble, su	ubround; trace	clay; moist		
Odot					ML							
_236_												
UMENT -												
237_							(237.0	- 252.0') Gravelly silt with sand (ML);	reddish brown	(5VR 1/3)·		
ICGRAN						[.]4.	mediu	<ul> <li>252.0 ) Graverry silt with sand (ML), m plasticity; some granule to large pet and; little very fine to coarse grained sa</li> </ul>	ble, subangula	ar to		
_238_		107.5.5					trace	clay; moist; gravel composed of mixed	lithology.	cabiouilu,		
COUS	120	IRZ-9-SS- 237-242			ML	6/9.						
¥_239_						600						
240												
Notes:	US	CS = Unifie	d Soil Classi	fication Sy	stem, U	= no	detecte	ed above the laboratory report	ing limit, pp	b = Parts	per Billion.	
BORIN												
SOIL												

9/	AR(	CADIS	Design & Consultancy for natural and built assets		Boring Lo	g		Sheet:	13 of	16
Date S		· · · · · · · · · · · · · · · · · · ·			Surface Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u>	ilot
		eted: <u>01/03/</u>			Northing (NAD83):	N/A	_		·	
Drilling		Casca			Easting (NAD83):	N/A	Client:	PG&E To	•	
Drilling			<u>Drilling</u>		Total Depth:	317 ft bgs	Location:		ater Remedy	Phase I
Driller			etrone		Borehole Diameter:	6 in	-	Needles (	JA	
Drilling Logge		-	<u>mer/ J. Cande</u> cia / G. Willfo		Depth to First Water Sampling Method:	10 ft Core Barrel	- Project Nu	ımbor: PC	000753.0051	1
Editor:			McGrane		Sampling Interval:	Continuous	_ FTOJ <del>e</del> CCINC	annoen. <u>INC</u>	000733.0031	
Weath			cool to warm		Converted to Well:	☐ Yes ⊠ No	-			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code USCS Class	Description			Drilling Notes	Drilling Fluid
 _241_		IRZ-9-SS- 237-242								
_										
_243_										
	120									
_244										
-		IRZ-9-SS- 242-247								
_245_										
_246_					ML Palal					
247_										
_248_										
<u> </u>										
249_					60.					
		IRZ-9-SS- 247-252			000	~				
_250_		Z 11-202			600					(0.0 - 281.0') No water used
	QC 4				.00					
_251_	86.4									
					000					
_252_					0 (252.0	- 266.0') Silty gravel with sand (GM);	eddish brown	/ moderate		
 _253_					some:	(5YR 4/4); granules to very large pebb silt; little cobbles, angular; little very fin	e to very coars	se grained		
_200_					sand, s	angular to subround; trace clay; moist itation; gravel composed of mixed litho	to dry; modera logy	te		
					l BHS					
		IRZ-9-SS- 252-257								
_255_		252-257								
_256_					GM PO D					
					090					
_257									(254.5 -	
-	78								261.0') Rough drilling	
_258_										
		IRZ-9-SS- 257-262								
_259_										
260 Notes:	US	CS = Unifie	d Soil Classif	ication Sys	stem, U = not detecte	ed above the laboratory report	ing limit, pp	b = Parts ı	oer Billion.	1

9/	RO	ADIS	Design & Consultancy for natural and built assets		Вс	ring	g Lo	g			Sheet	: 14 of	16
Date S	tarted	: <u>12/02/</u>	2018		Surface			N/A		Bor	ina No.	: <u>IRZ-9 P</u>	ilot
	•	eted: <u>01/03/</u>			Northin	• •	,	N/A				·	<u></u>
Drilling		<u>Casca</u>			Easting		083):			Client:	PG&E To	•	
Drilling			Drilling		Total D	-		317 ft bgs		Location:		ater Remedy	Phase I
Driller I			Petrone		Boreho						Needles	CA	
Drilling		•	mer/ J. Cand		•			25 ft bgs		D : (N		2000750 0054	
Logger Editor:	:		<u>rcia / G. Willfo</u> MaCrana		Sampli	-		10 ft Core Barre	91	Project N	umber: <u>RC</u>	2000753.0051	
Editor: Weath	- r	-	McGrane cool to warn		Sampli Conver	-		Continuous  ☐ Yes  ☐ No					
vveaine		Suring	T COOI LO WAITI		TOTIVE	Ted to	vveii.	res 🛆 ino	)				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS			Description			Drilling Notes	Drilling Fluid
	78	IRZ-9-SS-										(254.5 - 261.0') Rough drilling	I
201		257-262				19	(261');	some silt; little clay; m	noist to dry; strong	g cementation	; decrease		1
 262						13 P.K	in %sar meta-di	nd. Gravel composed iorite.	of mixed litholog	y, large cobbl	es of		
202							$\exists$						
263						15-17×	$\triangleleft$						
203					GM							(261.0 -	
264						10 P						266.0') Rough drilling	
_204_	60	IRZ-9-SS-					$\neg$						
265		262-267				6 De	1						
205_						99				•			
25						60							
_266			IRZ-9-VAS-					- 268.0') Gravelly elas					1
			264-269-EB (<0.17 U ppb)				to subre	<ul><li>(4); medium plasticity ound; little very fine to</li></ul>	medium grained				
267			( 11 /		ML/MH		Subrou	nd; moist; moderate o	cementation				-
18092/						.0.	4						
						P	(268.0	- 273.0') Silty gravel v	with sand (GM); re	eddish brown	/ moderate		
AKC						13 P.	some s	5YR 4 <mark>/4</mark> ); granules to ilt; little cobbles, angu	ular: little verv fine	to medium o	rained		
269_		177.0.00				00	sand, s	ubangular to subrour ation; gravel compos	nd; little clay; mois	st to dry; stror	ıg		
¥		IRZ-9-SS- 267-272				10 P	meta-di			-gy, .a. g		(267.0 -	(0.0.004.01)
270_	72					697						273.0') Rough drilling	(0.0 - 281.0') No water used
					GM	600						ariiii g	
271_						139	$\frac{1}{\sqrt{1-\frac{1}{2}}}$						
						60							
_272_						19,9							
<u> </u>													
273_						-		- 277.0') Gravelly silt					1
							5/4); so	me granule to large plum grained sand, sul	oebble, subangula	ar to subround	d; little fine		
<u>274</u>								oist to dry	bangalar to cabro	ana, naco co	bbico, iraco		
- BRAFT		IRZ-9-SS- 272-277				60							
<u>_275_</u>					ML		اد						
88E 10						[.44]							
276_												(273.0 -	
- ONME	96											281.0') Rough	
_277						BUN	) (277 n ·	- 281.0') Silty gravel v	with sand (GM)· re	eddish brown	(2.5YR	drilling	
GGRA			IRZ-9-VAS-			10 P.	4/4); gr	anules to very large p very coarse grained s	oebbles, angular t	o subround;	some very		
278_			276-281					s, angular to subround					
isinosi -		IRZ-9-SS- 277-282	(<0.17 U ppb)		GM	601	7						
ž _279_		, <u> </u>				[3]	7						
						[ D							
280 Notes:	110	CS = Unific	d Soil Classi	fication Sve	tem II	Pol (1)	detecto	d above the labo	ratory reporti	na limit pr	h = Parte	ner Rillion	
JINUICS.	03	OO – UIIIIE	u Juli Classi	noauon Sys	icili, U	- 1101	uelette	a above tile labo	natory reporti	ng mint, pp	n – Faits	pei DilliUII.	
OIL BO													
ő L													

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet:	15 of	16
	Started					e Elevation:	N/A	Bor	ina No.	: <u>IRZ-9 P</u> i	ilot
	•	eted: <u>01/03/</u>				g (NAD83):	N/A				
Drilling	-	<u>Casca</u>			_	(NAD83):	N/A	Client:	PG&E To	•	<u> </u>
	g Meth		•			•	317 ft bgs	Location:		ater Remedy	Phase I
	Name Asst:		<u>'etrone</u> mer/ J. Cande			le Diameter: o First Water		-	Needles (	<u>UA</u>	
Logge	-	•	cia / G. Willfo		•	ng Method:	10 ft Core Barrel	Project Ni	ımher: RC	:000753 0051	
Editor			McGrane		-	ng Interval:	Continuous	. 1 10,000 140	illibol. <u>Ito</u>	000700.0001	
Weath			cool to warm		-	ted to Well:	☐ Yes ⊠ No	-			
Depth (ff)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
	96	IRZ-9-SS-	IRZ-9-VAS- 276-281 (<0.17 U ppb)		GM					(273.0 - 281.0') Rough drilling	(0.0 - 281.0') No water used
		277-282				(281.0	- 285.5') (NR); 281-285.5 drilled with v	vater, no recov	rery		
	18	IRZ-9-SS- 282-287			NR					(281.0 - 287.0') Attempted to drill using water this run to collect rock core.	(281.0 - 287.0') 50 gal of water used
286					GM	4/4); g very co oxide	- 287.0') Silty gravel with sand (GM); r ranules to large pebbles, angular to sub parse grained sand, angular to subrour staining; 281-287 drilled with water. 1.5	bround; some nd; little silt; we b' of recovery.	very fine to et; iron		
14 J2888 J288 J288 J288 J288 J288 J288 J2		IRZ-9-SS- 287-292			ML	mediui subrou	- 293.5') Gravelly silt with sand (ML); rm plasticity; some granule to large peb ind; little very fine to medium grained s ind; trace clay; moist	ble, subangula	ar to		
293 293 294	120					granul	- 297.0') Silty gravel with sand (GM); r es to large pebbles, angular to subrour	nd; some very	fine to		(287.0 - 317.0') No water used
295295		IRZ-9-SS- 292-297	IRZ-9-VAS- 292-297 (<0.17 U ppb)		GM		grained sand, angular to subround; so ir to subround; trace clay; moist	ome silt; frace	cobbles,		
	120			Topock - Weathered Bedrock - conglomerat	GIVI	gravel large programe trace of	- 307.0') Topock - Weathered Bedrock with sand (GM); reddish brown(2.5YR nebbles, angular to round; some sitt; litt d sand, angular to subround; trace cobelay; moist; strong cementation; iron ox sed of mixed litholgy, some gravels ha	4/3); granules le very fine to bles, angular t ide staining; g	to very medium to round; ravel	(297.0 - 307.0') Drill rods chattering	
Notes	US	CS = Unifie	d Soil Classif	ication Sys	stem, U	= not detecte	ed above the laboratory reporti	ng limit, pp	b = Parts	per Billion.	
SORIN											
SOILE			· · · · · · · · · · · · · · · · · · ·								

9/-	۱RC	ADIS	Design & Consultancy for natural and built assets		Во	ring	Log		Sheet:	16 of	16
Date S		·				Elevation		Bor	ina No.:	IRZ-9 P	ilot
	•	ted: <u>01/03/2</u>				g (NAD8	•				
Drilling		Casca			_	(NAD83	•	Client:	PG&E To	•	DI I
Drilling Driller			•		Fotal De	-	317 ft bgs eter: 6 in	Location:	Needles (	ater Remedy	Phase I
Drilling			ner/ J. Cande				/ater: <u>25 ft bgs</u>		<u>iveedies (</u>	JA	
Logge			cia / G. Willfo		-	ng Metho	_	Project Nu	ımher: RC	000753 0051	
Editor:			//cGrane		•	ng Interv		i rojour ru		000100.0001	
Weath			cool to warm		-	ted to W					
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
	120			Topock - Weathered Bedrock - conglomerate	GM					(297.0 - 307.0') Drill rods chattering	
307_307_307_307_4/288820214/288820214/288820214/288820214/28820000000000000000000000000000000000				Topock - Weathered Bedrock - conglomerate	MH		307.0 - 311.0') Topock - Weathered Bedrock elastic silt (MH); reddish brown (2.5YR 4/4)(5' granule to large pebble, subangular to subrounedium grained sand, angular to subround; transport to the subround of moderate cementation; gravel composed of moderate cementation; gravel cementation; gra	YR); high plas ind; little very race clay; moi- nixed litholgy.  - conglomera	ticity; some fine to st;		(287.0 - 317.0') No water used
312 312 313 313 314 314 315 315 315 315 315 315 315 315 315 315	120			Topock - Weathered Bedrock - conglomerate	GM		gravel with saint (shif), redustribution (2.50me fine sand, angular to subround; some silt; trace coound; trace clay; moist; strong cementation; i gravel composed of mixed litholgy, some red	e to very coars obbles, subanç iron oxide stai	se grained gular to ning;		
_316											
318_ 318_ 319_							End of Boring at 317.0 'b	ogs.			
A DI											
320											
Notes:	US	CS = Unified	d Soil Classif	ication Sys	tem, U	= not de	tected above the laboratory reporti	ng limit, pp	b = Parts p	oer Billion.	
BORIE											
los Los											

Compared	9/	ARC	<b>ADIS</b>	Design & Consultancy for natural and built assets		Во	ring	ı Log		Shee	t: 1 of	13
Drilling Co.   Caccadde	Date S	Started	: <u>11/17/2</u>	2018		_			Bor	ina No	.: IRZ-13	Pilot
Total Depth   Sonic Drilling		-						•	_			
Driller Name   Nick Petrone   Borehole Diameter   6 in   Needles CA	_	-									-	
Dolling Asst: T. Aymer/J. Candelaria Depth to First Water, 24.5 ft bgs Logger: Sean McGrane San McGrane Sampling Method: 10 ft Core Barrol Project Number: RC000753.0051  Sean McGrane Sampling Interval: Continuous Continu	-	-		-			•	<del>-</del>	_ Location:		-	Phase I
A. Garriak J. Gant L. Sampling Interval: Confine   Project Number: RC000753.0051									_	Needles	CA	
Editor:  Saen McGrane  Patrix Cloudy 45 to 74 F  Converted to Well:  Yes S No  Description  Desc		-	-			-		_	_			
No						-	-		_ Project N	umber: <u>R(</u>	C000753.005	1
Section   Surple   D   Surple   D   Connected   Section   Surple   D						•	•		_			
1	Weath	er:	<u>Partly (</u>	Cloudy 46 to	74 F	Convert	ted to \	Well:				
1	Depth (ft)	Recovery (in)			Geologic Formation	USCS	USCS Class	Description			Drilling Notes	Drilling Fluid
24	_ 1 _ _ 1 _ _ 2 _	24						(10YR 4/4); very fine grained to fine grained trace granule to small pebbles, subangular t	, subangular to	round;		
24												
4	_ 3 _											
SP		24										
SP	_ + _											
SP												
7	_ 3 _								*			
7												
SP SP SP	_ 6 _	27										
SP SP SP												
SP (0.0 - 243.0") No water use 111	_ ′ _											
SP (0.0 - 243.0") No water use 111												
	8					SP						
No water use  112	9											
No water use  112												
13	10											(0.0 - 243.0') No water used
13												
	11											
	12	102										
						•						
	13											
	14											
	15											
small pebbles, subangular to round; moist; no odor; no staining  108  19  20	16											
small pebbles, subangular to round; moist; no odor; no staining  108  19  20	_										]	
small pebbles, subangular to round; moist; no odor; no staining  108  19  20	17							(16.5 - 24.5') Silty sand (SM); strong brown grained to fine grained, subangular to round	(7.5YR 4/6); ve : and silt: little (	ry fine granule to		
- 108 -19_ - 20								small pebbles, subangular to round; moist; r	no odor; no stai	ning		
- 108 -19_ - 20	18_											
19		100				SM						
	19	108										
	20											
	Notes:	US	CS = Unified	d Soil Classif	fication S	/stem, U	= not o	detected above the laboratory repor	ting limit, pp	b = Parts	per Billion.	1
						· · ·		, ,				

<b>AR</b>	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet	2 of	13
Date Started	d: <u>11/17/</u>	2018		Surface	Elevation:	N/A	Bor	ina No.	: <u>IRZ-13 l</u>	Pilot
Date Compl	eted: <u>12/05/</u>	2018		Northin	g (NAD83):	N/A		9	· <u> </u>	<u></u>
Drilling Co.:	<u>Casca</u>	de		Easting	(NAD83):	N/A	Client:	PG&E To	pock	
Drilling Meth		Drilling				243 ft bgs	Location:	Groundw	<u>ater Remedy</u>	Phase I
Driller Name		etrone			le Diameter:		-	Needles (	CA	
Drilling Asst	-	<u>ner/J. Cande</u>		-		: 24.5 ft bgs	-			
Logger:		<u>cia / J Gantt</u>			ng Method:	10 ft Core Barrel	Project Nu	umber: <u>RC</u>	000753.0051	
Editor:		<u>McGrane</u>			ng Interval:	Continuous	-			
Weather:	<u>Partly</u>	Cloudy 46 to	74 F	Conver	ted to Well:	☐ Yes ⊠ No				
Depth (ft) Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
21	IRZ-13-SS- 25-30 IRZ-13-SS- 30-35	IRZ-13-VAS- 32-37 (220 ppb)		SM	graine small   (27.0 - to ven	27.0') Silty sand with gravel (SM); paled to very coarse grained, subangular; a pebbles, subangular to round; wet; no decoarse grained, subangular to round; vocarse grained, subangular to round; moist; not pebbles, subangular to round; moist;	and silt; little grodor; no stainir  YR 6/3); very to some silt; little	ranule to ng fine grained granule to		(0.0 - 243.0') No water used
¥39										
1000 H										
<u> 40</u> Notes: US	SCS = Unifie	d Soil Classi	ication Sv	rstem, U	= not detecte	ed above the laboratory reporti	ing limit, pp	b = Parts ı	per Billion.	1
ORING		2.0.001	37	, 3			J, FP			
SOIL B										

Add	Depth   Page	ARC	CADIS	Design & Consultancy for natural and built assets		Вс	oring Lo	g			Sheet	: 3 of	13
Northing (No. 19.3)   NA	Conting   Cont		·							Bor	ing No.	: IRZ-13	Pilot
Total Depth:   243 ft bgs	Total Depth: 243 ft bgs. Location: Groundwater Romedy Phase I Nick Petrone - Borbilling Asst. Conjugate - A. Sactor J J Cants. Seam McGrane - Some Depth of First Water: 24.5 ft bgs. Seampling Method: 10 ft Core Barrel - Project Number: RC000753.0051 Seampling Method: 10 ft Core Barrel - Project Number: RC000753.0051 Seampling Method: 10 ft Core Barrel - Project Number: RC000753.0051 Seampling Intervat: Confinences: Seampling						• ,						
Diller   Neme	Direction   Nick Petrone   Sorehole Diameter: 8 in   Needles CA	_										•	DI I
Delining Assist: T. Aymer/J. Candelaria Depth to First Water 24.5 ft ftgs  Googner: Sean McGrane San McGrane San McGrane Sampling Method: 10 ft Core Barrel  Parity, Cloudy 46.10, Z4.F. Corrected to Well:	Description  A. Sarcia J.J. Gloady  Sean McGrane  Sean Mc	_		-						Location:		-	/ Phase I
A. Garcia J. Gantt Seam McCrane Seam McCran	A_Garria   J_Gant   Sampling Interval   Continuous   Co										needies	CA	
Saan McGrane   Sampling Interval   Continuous	Saan McGrane	_	-			-		-		Drainat No	ımbarı DC	2000752.005	1
Received   Part   Cloudy 46 to 74 F   Converted to Well:   Yes   No	RZ-13-SS-   RZ-13-SS-   Solution   RZ-13-SS-   RZ-13-SS-   Solution   RZ-13-SS-   RZ-13						-		<u>eı                                      </u>	Projectivi	umber. <u>KC</u>	,000733.00 <u>3</u>	1
Section   Circumstate   Circ	Simple   Description   Descr					•	•						
141	SM		<u>raiuy</u>	Uloudy 40 ic		CONVE	TIEU IO VVEII.	res 🛆 ivi	J				
120	120	Depth (ft) Recovery (in)			Geologic	USCS Code	USCS		Description			Drilling Notes	Drilling Flui
SM   large pebbles, subangular; some slit: moist no odor; no staining	SM   large pebbles, subangular; some silt; moist; no odor; no staining    ML     (46.0 - 47.0') Sandy silt (ML); brown (10YR 4/3); and very fine to fine grained sand, subangular; moist; no odor; no staining    (47.0 - 53.30') Silty sand (MI); grave (SM); pink (SYR 7/4); very fine grained to very coarse grained, subangular to round; some granule to small pebbles; subangular to round; some silt; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); light red (2.5YR 6/6); very fine grained to very coarse grained, subangular; itile silt; trace granule to small pebbles, subangular; moist; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; some silt; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; some silt; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained, subangular to round; wet; no odor; no staining    (87.0 - 64.5') Silty sand (SM); pinkish gray / grayish orange pink(SYR 7/2), very fine grained to very coarse grained.	42 43 120 44				SM	(44.5 grain	- 46.0') Sandy silt with	n gravel (SM); brow ned, subangular to	vn (10YR 4/3)	); very fine small to		
RZ-13-SS- 46-50  SM  SM  RZ-13-SS- 50-55  RZ-13-SS- 50-50  RZ-13-SS- 50-50  RZ-13-SS- 50-60  RZ-13-SS- 50-60	RZ-13-SS- 46-50  SM  SM  (0.0 - 243. No water u  Figure 1						large (46.0 grain	pebbles, subangular; - 47.0') Sandy silt (ML ad sand, subangular; r	some silt; moist; no b); brown (10YR 4/2 noist; no odor; no	o odor; no sta 3); and very f staining	aining ine to fine		
No water use and the state of t	SM  IRZ-13-SS- 50-55  SM  (53.0 - 57.0') Sitty sand (SM); light red (2.5YR 6/6); very fine grained to very coarse grained, subangular, moist, no odor; no staining  SM  (57.0 - 64.5') Sitty sand (SM); pinkish gray / grayish orange pink(5YR 72); very fine grained to very coarse grained, subangular to round; some sitt trace granule to small pebbles, subangular to round; some sitt trace granule to small pebbles, subangular to round; some sitt trace granule to small pebbles, subangular to round; some sitt trace granule to small pebbles, subangular to round; wet; no odor; no staining	 49 					graine small	ed to very coarse grain peb <mark>bles</mark> , subangular t	ned, subangular to	round; some	granule to		(0.0 - 243.
to very coarse grained, subangular; little silt; trace granule to small pebbles, subangular; moist; no odor; no staining  SM  SM    SM   SM   SM   SM   SM   SM	to very coarse grained, subangular, little silt; trace granule to small pebbles, subangular; moist; no odor; no staining  SM  SM    SM   SM   SM   SM   SM   SM	51 51 52				SM							No water us
IRZ-13-SS- 55-60  IRZ-13-VAS- 57-62 (<0.17 U ppb)  IRZ-13-VAS- 60  IRZ-13-VAS- 57-62 (<0.17 U ppb)  IRZ-13-VAS- 57-62 (<0.17 U ppb)	IRZ-13-SS- 55-60  IRZ-13-VAS- 57-62  (<0.17 U ppb)  IRZ-13-VAS- 60  IRZ-13-VAS- 57-62  (<0.17 U ppb)  IRZ-13-VAS- 57-62  (<0.17 U ppb)  IRZ-13-VAS- 57-62  (<0.17 U ppb)	 55 				SM	to ver	y coarse grained, sub-	angular; little silt; ti	ace granule			
		58 108		57-62		SM	7/2); some	very fine grained to ver silt; trace granule to s	ry coarse grained,	subangular t	o round;		
		60											
, , , z	, , , and		CS = Unifie	ed Soil Classi	fication Sv	stem. U	l = not detect	ed above the labo	oratory reportin	ng limit. pn	b = Parts	per Billion.	1
			3 - Stille	514501	y	, 0		5.0 270 1000		۳۰۰۰۰۰ و	. 3.10	1 -:	

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Bo	ring L	.og		Sheet:	4 of	13
Date S						e Elevation		Bor	ing No.	: <u>IRZ-13</u>	Pilot
	•	eted: <u>12/05/</u>				ig (NAD83)					
Drilling		<u>Casca</u>	ae Drilling			g (NAD83):	N/A 243 ft bgs	_ Client:	PG&E To	роск ater Remedy	, Dhasa I
Drilling Driller			etrone			ole Diamete	_	_ Location.	Needles (	-	Fliase i
Drilling			mer/J. Cande				ter: <u>24.5 ft bgs</u>	_	11000100	<i>57</i> (	
Logge		-	cia / J Gantt		-	ng Method	_	- _ Project Nı	umber: RC	000753.005	1
Editor:		<u>Sean I</u>	<u>McGrane</u>			ng Interval		_			
Weath	er:	<u>Partly</u>	Cloudy 46 to	74 F	Conver	rted to Well	: ☐ Yes ⊠ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
61 62 63 64 65	108	IRZ-13-SS- 60-65	IRZ-13-VAS- 57-62 (<0.17 U ppb)		SM	(64 to)	.5 - 67.0') Silty s <mark>and</mark> (SM); pale yellow (2. ery coarse grained, subangular to round;	5Y 7/4); very fi	ne grained granule to		
FOR PLOS GPJ ARCADIS 20180827 PLOS GDT 02005/19 1345		IRZ-13-SS- 65-70			SM	(67 coa	all pebbles, subangular to round; moist; no. 0 - 77.0') Silty sand (SM); pink (5YR 7/3) arse grained, subangular to round; and silt bbles, subangular to round; moist; no odo	o odor; no stai	ning		(0.0 - 243.0') No water usec
ВОВИИО ГООЕ РОЖЕ ТОРАСК С:USERS/SIGNCGRANNEIDOCUMENTS/PICASE TOPOCK/DRAFT BORING ГООЕ ТОРАСК DATABASE  7 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		IRZ-13-SS- 70-75			SM						
908 TOPACK C'UGERSISMICGRAMEIDOCUMENTSIPGRET	108	IRZ-13-SS- 75-80			SM	gra	.0 - 87.5') Silty sand (SM); very pale brow ined to very coarse grained, subangular t nule to small pebbles, subangular; moist;	o round; some	silt; trace		
Notes:	US	CS = Unifie	d Soil Classif	ication Sys	tem, U	= not dete	cted above the laboratory report	ing limit, pp	b = Parts p	per Billion.	
BORING				-							
SOILB											

9/	AR(	CADIS	Design & Consultancy for natural and built assets		Bor	ing L	og		Sheet	: 5 of	13
Date S						Elevation:	N/A	В	oring No.	: IRZ-13	Pilot
	•	eted: <u>12/05/</u>			_	(NAD83):	N/A				
Drilling	-	<u>Casca</u>				NAD83):	N/A	Client:	PG&E To on: Groundw	-	, Dhasa I
Drilling Driller	-		Drilling etrone		Total De	թւո. ։ Diameter	243 ft bgs	Localic	Needles	•	Phase
Drilling			mer/J. Cande				er: <u>24.5 ft bgs</u>		Necdica	O/ (	
Logge		-	cia / J Gantt		-	g Method:	10 ft Core Barrel	Projec	t Number: RC	000753.005	1
Editor			McGrane			nterval:	Continuous				
Weath	er:	<u>Partly</u>	Cloudy 46 to	74 F	Converte	ed to Well:	$\square$ Yes $oxdiv No$				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Desc	ription		Drilling Notes	Drilling Fluid
	108	IRZ-13-SS- 80-85			SM						
FOR PLOGGEN ARCADIS 20180827 PLOG GDT 0206/19 1345		IRZ-13-SS- 85-90			C	(87.5	pink (5YR 7/4); no staining 5 - 97.0') Silty gravel with sand granules to small pebbles, sul ry coarse grained sand, subar ing	bangular to round; s	ome very fine		(0.0 - 243.0')
100 Pose Topack C:\u00e408sis\u00e4cqqan\u00e40bcc\u00e40bqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqq	108	IRZ-13-SS- 90-95			GM						No water used
04E TOPACK C:USERSISMICGRANEIDOCUMENTSIPGRE TOPOC	120	IRZ-13-SS- 95-100			GP-GM	brow roun silt; (99.6 (6/4);	0 - 99.0') Poorly graded gravel in / light brown(5YR 6/4); grant d; some very fine to very coars noist; no odor; no staining	ules to small pebble se grained sand, sub treddish brown / ligl se grained, subangu	s, subangular to pangular; little ant brown(5YR lar to round;		
	US	CS = Unifie	d Soil Classif	ication Sys	stem, U =	<u> (1848) - 1</u>	ted above the laborator			per Billion.	1
BORING							·				
SOILB											

<b>AR</b>	CADIS	Design & Consultancy for natural and built assets		Во	ring	Log		Sheet:	6 of	13
Date Started	d: <u>11/17/2</u>	2018	;	Surface	Eleva	ion: <u>N/A</u>	Bor	ina No.	: <u>IRZ-13</u>	Pilot
	eted: <u>12/05/2</u>			Northin		*			<u>'</u>	
Drilling Co.:				Easting	•	•	Client:	PG&E To	•	
Drilling Meth		•		Γotal D	•	243 ft bgs	Location:		ater Remedy	Phase I
Driller Name				Boreho		· · · · · · · · · · · · · · · · · · ·		Needles (	CA	
Drilling Asst		ner/J. Candela cia / J Gantt		-		Water: <u>24.5 ft bgs</u> nod: <u>10 ft Core Barrel</u>	Droigat Nu	ımbor: DC	000752 005	1
Logger: Editor:		IcGrane		Samplir Samplir	-		Projectivi	illibel. <u>RC</u>	000733.003	<u> </u>
Weather:		Cloudy 46 to 7		Conver	-					
	<u>rany</u>									
Depth (ft) (Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	Code	USCS	Description			Drilling Notes	Drilling Fluid
	IRZ-13-SS- 100-105	IRZ-13-VAS- 102-107 (<0.17 U ppb)		SM		no odor; no staining				
106	IRZ-13-SS- 105-110			ML		(107.0 - 109.5') Sandy silt with gravel (ML); by plasticity; some very fine to very coarse grains subangular; little granule to very large pebble no odor; no staining  (109.5 - 112.0') Silty sand with gravel (SM); d	ed sand, angu s, angular; we	ular to st; very stiff;		(0.0 - 243.0')
1111 1118 1118 111 118 111 118 111 118 111 118 111 118 111 118 111 118	IRZ-13-SS- 110-115			SM		(10YR 4/4); very fine grained to very coarse g subround; little granule to small pebbles, suba wet; no odor; no staining  (112.0 - 114.0') Silty gravel with sand (GM); o granules to large pebbles, subangular to roun coarse grained sand, angular to subangular; s no staining	angular to roun	nd; little silt; 5Y 4/3); fine to very		No water used
				SM	0	(114.0 - 117.0') Silty sand with gravel (SM); re brown(5YR 4/4); very fine grained to very coa subangular; some granule to very large pebbl trace cobbles, angular; wet; no odor	arse grained, a les, angular; li	angular to ttle silt;		
118108#108108108108108108108108108108108108108108108108	IRZ-13-SS- 115-120			SM		(117.0 - 123.0') Silty sand with gravel (SM); revery fine grained to very coarse grained, angugranules to very large pebbles, angular to subno odor; weak cementation; no staining; @ (1 metadiorite.	ular to subang bangular; som	ular; some e silt; wet;		
	SCS = Unified	Soil Classific	cation Sys	tem, U	= not c	etected above the laboratory reporti	ng limit, pp	b = Parts p	per Billion.	
BORI										
SOIL										

9/	۱RC	ADIS	Design & Consultancy for natural and built assets		Во	ring	Log		Sheet	7 of	13
Date S		-			Surface			Bori	ina No.	: <u>IRZ-13</u>	Pilot
	•	eted: 12/05/2			Northing		·			<u> </u>	
Drilling		Cascac			Easting	•	,		PG&E To	•	
Drilling	•		<u> Drilling</u>		Total De	•	•	Location:		ater Remedy	Phase I
Driller		· · · · · · · · · · · · · · · · · · ·					neter: <u>6 in</u>		Needles (	CA	
Drilling		•			•		Water: 24.5 ft bgs				
Logge			cia / J Gantt		-	-		Project Nu	imber: RC	000753.005	
Editor:				74 5	• •	-					
Weath	er:	<u>Partiy C</u>	Cloudy 46 to	1	Convert	ea to v	Well: ☐ Yes ⊠ No				_
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
	108	IRZ-13-SS- 120-125			SM		(123.0 - 126.0') Silty sand with gravel (SM); red brown(5YR 4/4); very fine grained to very coar subangular; and granules to very large pebble: subangular; little silt; trace mica; wet; no odor; staining; @ (123) 4" lens of silty gravel with sa	rse grained, a s, angular to weak cement	ngular to		
125							(126.0 - 132.0') Silty sand with gravel (SM); red brown(5YR 4/4); very fine grained to very coar	se grained, a	ngular to		
127_		IRZ-13-SS- 125-130					subangular; some granules to very large pebbl subangular; some silt; little mica; wet; no odor; staining (127'); little silt; no staining				
128_		120-100			SM		(128'); some silt; little granules to very large persubangular; trace mica; no staining (128.5'); some granules to very large pebbles, little silt; trace cobbles, angular; no staining	_			
											(0.0 - 243.0') No water used
132_	108	IRZ-13-SS- 130-135			GM		(132.0 - 133.0') Silty gravel with sand (GM); re brown(5YR 4/4); granules to very large pebble some very fine to very coarse grained sand, are some silt; trace mica; wet; no odor; no staining	s, angular to ngular to subr	subround;		
134 135							(133.0 - 137.0') Silty sand with gravel (SM); rebrown(5YR 4/4); very fine grained to very coar subround; some granules to very large pebbles subangular; little silt; trace caliche; wet; no odd	ddish brown / se grained, a s, angular to	ngular to		
136					SM						
137_	108	IRZ-13-SS- 135-140			ML		(137.0 - 142.5') Sandy silt with gravel (ML); rec brown(5YR 4/4); medium plasticity; some med angular; some very fine to very coarse grained subround; trace clay; moist; hard; no odor; mo staining	lium to large p d sand, angula	ebbles, ar to		
Notes:	US	CS = Unified	l Soil Classif	ication Sy	/stem, U	= not o	detected above the laboratory reporting	ng limit, ppl	b = Parts <sub>l</sub>	per Billion.	ı

9/	AR(	CADIS	Design & Consultancy for natural and built assets		Во	rin	g Log	She	eet: 8 of	13
Date S	Started	: <u>11/17</u>	2018		Surface	Elev	ation: <u>N/A</u>	Boring N	o.: <u>IRZ-13 F</u>	Pilot
Date 0	Comple	eted: <u>12/05/</u>	2018		Northin	• •	•			<u></u>
Drilling	-	Casca			Easting	•	•		Topock	
	g Meth		Drilling		Total D	•	•	Location: Ground	•	Phase I
	Name		Petrone		Boreho		· · · · · · · · · · · · · · · · · · ·	<u>Needle</u>	es CA	
	g Asst:	-	mer/J. Cande		•		t Water: 24.5 ft bgs			
Logge			rcia / J Gantt		Sampli	-		Project Number:	RC000753.0051	
Editor			McGrane		Samplir	-				
Weath	ner:	Partiy	Cloudy 46 to		Conver	tea to	Well: ☐ Yes ☒ No			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic	OSCS	USCS	Description		Drilling Notes	Drilling Fluid
 _141_  _142_		IRZ-13-SS-			ML					
143 144 145	108	140-145	IRZ-13-VAS- 142-147 (<0.17 U ppb)		SM		(142.5 - 147.0') Silty sand with gravel (SM); red brown(5YR 4/4); very fine grained to very coar to subround; some granules to very large pebb subangular; some silt; trace caliche; wet; no or	rse grained, subangula oles, angular to		
146		IRZ-13-SS- 145-150			GM		(146'); little silt; no staining; increase in gravel.  (147.0 - 149.0') Silty gravel with sand (GM); re brown(5YR 4/4); granules to medium pebbles, some very fine to very coarse grained sand, ar some silt; trace large to very large pebbles, an	eddish brown / moderat angular to subangular ngular to subround;	;	
					ML		(149.0 - 150.0') Sandy silt with gravel (ML); rec brown(5YR 4/4); medium plasticity; some very grained sand, angular to subangular; little grar pebbles, angular; moist; hard; weak cementati (150.0 - 152.0') Silty sand with gravel (SM); rec	fine to very coarse nule to very large ion		(0.0 - 243.0') No water used
16.19/TOPOCK DATABASE	108				SM		brown(5YR 4/4); very fine grained to very coar subround; some granules to very large pebble: subangular; some silt; wet; no odor; no staining	s, angular to		
AFT BORING LOGS/GINT FILES/01.	106	IRZ-13-SS- 150-155			GM		(152.0 - 155.0') Silty gravel with sand (GM); re brown(5YR 4/4); granules to very large pebble very fine to very coarse grained sand, angular	s, subangular; some		
155	108	IRZ-13-SS- 155-160			SM		(155.0 - 161.0') Silty sand with gravel (SM); red brown(5YR 4/4); very fine grained to very coar subround; some granules to very large pebbles subangular; some silt; trace mica; moist; no oc	se grained, angular to s, angular to	9	
159_ 160_ Notes		CS = Unifie	ed Soil Classi	fication Sys	stem, U	= no	detected above the laboratory reportin	ng limit, ppb = Par	ts per Billion.	
BORII										
SOIL										

9/	ARC	ADIS	Design & Consultancy for natural and built assets		Bori	ing Lo	g		Sheet	: 9 of	13
Date S	tarted	: <u>11/17/</u>	2018		Surface E	levation:	N/A	Bor	ina No.	: <u>IRZ-13 l</u>	Pilot
		eted: <u>12/05/</u>			Northing (		N/A	_		<u> </u>	
Drilling		<u>Casca</u>			Easting (N		N/A	_ Client:	PG&E To	-	
Drilling			<u>Drilling</u>		Total Dep		243 ft bgs	_ Location:		ater Remedy	Phase I
Driller I			etrone	lawia	='	Diameter:	· ·	_	Needles	CA	
Drilling		-	ner/J. Cande				: 24.5 ft bgs 10 ft Core Barrel	- Droiget Nu	ımbor: DC	2000752 0054	1
Logger Editor:			cia / J Gantt McGrane		Sampling Sampling		Continuous	_ Project ivi	umber. <u>RC</u>	000753.0051	<u> </u>
Weath			Cloudy 46 to	74 F	Converted		☐ Yes ☒ No	_			
- Todan		<u>r aray</u>		,							
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	nscs Code	Class	Description			Drilling Notes	Drilling Fluid
 _161_					SM						
					0	(161.0 brown	) - 171.0') Sandy silt with gravel (ML); r (5YR 4/4); low plasticity; some granule	eddish brown as to very large	/ moderate pebbles,		
_162_						angula	ar to subangular; some very fine to ver ar to subround; moist; no odor; no stair	y coarse grain			
		IRZ-13-SS-			0			9			
_163_		160-165									
	108				0	70					
_164_											
					0						
_165_					) a						
					0						
166					ML o						
					0						
167											
		IRZ-13-SS- 165-170			0	0.0					
168					Pa						
					0	0,0					
_169_					0	90					
170					0	0.0					(0.0 - 243.0')
L1/U_						0					(0.0 - 243.0) No water used
171					0						
'' '						(171.0	o - 176.0') Silty sand with gravel (SM); (5YR 5/6); very fine grained to very co	yellowish red /	light		
 _172_	100					subro	und; some granules to very large pebb	les, subangula	rto		
	108	IRZ-13-SS-				subro	und; some silt; moist; no odor; no stain	ıı ıg			
		170-175				14H					
					SM						
_174_					GIVI						
[ ]											
_175_											
<u> </u>											
_176_						(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	1 407 0N Oile 1 111 1 (C. )		II andrea		
						brown	0 - 187.0') Silty sand with gravel (SM); (5YR 5/6); very fine grained to very co	arse grained, a	angular to		
_177						suban	und; some granules to very large pebb gular; some silt; moist; no odor; no sta	les, angular to ining; @ (176)	gravel		
<u> </u>		IRZ-13-SS- 175-180				layer	5" thick.	,	-		
_178_		173-100			SM						
F -	108										
_179_											
F +											
180 Notes:	110	CS = Unific	d Soil Classif	ication Sv	stem II –	not detect	ed above the laboratory report	ina limit na	h = Parte	ner Billion	
1003.	- 00		a Con Ciassii	iodilon Oy	,5,6,111, 0 -	or actect	sa above the laboratory report	g, pp	– i aits	יווטווים ביי	

	9/	AR(	CADIS	Design & Consultancy for natural and built assets		Во	ring	J Log	9			Sheet	: 10 of	13
Northing (No. 12.5)   NO.   Northing (No. 12.5)   NO.			·								Bor	ina No.	: IRZ-13	Pilot
Deliling Method:   Sonic Deliling   S		•												
Driller Marie: Driller Marie: Driller Marie: Logger: Seat MicClane Seat	_	•											-	
Deliting Asst. T. Aylmedi. Candelaria Logger: Editor: Sean McGrane Sea	1	-		•			-		-		Location:		•	Phase I
Logger: A. Garcia / J Gant   Sampling Interval: Confirmations   Project Number: RC000753.0051  Seam McGrane   Sampling Interval: Confirmations   Project Number: RC000753.0051  Seam McGrane   Sampling Interval: Confirmations   Project Number: RC000753.0051  Seam McGrane   Sampling Interval: No   Project Number: RC000753.0051  Seam McGrane   Project Number: RC000753.0051												Needles	CA	
Editor:  Sam McGrane  Partly Cloudy 48 to 74 E  Converted to Well:  Partly Cloudy 48 to 74 E  Converted to Well:  182   Silve Sample ID  Sample	1								~		D :		2000750 005	4
Meanther:   Partly Cloudy 46 to 74 F   Converted to Well:   Yes   No							-				Project Nu	imber: <u>RC</u>	2000753.005	1
Simple ID			·		71 E		•							
181   182   182.13.VAS   182.13.VAS   182.13.VAS   183.184   185.185   184.185   185.1	vveau		railiy	Tioudy 40 to		Conven	Led to	vveii.	res 🛆 No					
RZ-13-SS-180-185   RZ-13-VAS-180-185   RZ-13-VAS-180-185   RZ-13-VAS-180-185   RZ-13-VAS-180-185   RZ-13-VAS-180-185   RZ-13-SS-180-185   RZ-13-	Depth (ft)	Recovery (in)			Geologic	USCS	USCS			Description			Drilling Notes	Drilling Fluid
187.  187.  188.  190.  190.  190.  191.  191.  192.  108.  187.  187.  193.  194.  195.  196.  197.  198.		108		180-185		SM				arge pebbles, an	ngular to subar	ngular; no		
188_   189-190   189-190   189-190   189-190   189-190   189-190   190	186							(187.0 -	197.0') Silty sand with	n gravel (SM); re	eddish brown /	moderate		
191	189							subang	ular; some granules to	very large pebb	oles, subangul	ar to		(0.0 - 243.0')
		108				SM					gular to subar	ngular; little		No water used
IRZ-13-SS-195-200  IRZ-13-VAS-197-202 (<0.83 ppb)  IRZ-13-VAS-199 (SM); weak red / pale reddish brown(10R 5/4); very fine grained to coarse grained, angular to subround; some granule to small pebbles, subangular to subround; some silt; trace boulders; trace mica; coarser clast composed of conglomerate; moist; no odor; no staining	194							(193'); s little silt	ome granules to very little mica; no staining	large pebbles, ag; increase in %	angular to sub sand.	angular;		
LRZ-13-SS-195-200  IRZ-13-VAS-195-200  IRZ-13-VAS-197-202 (<0.83 ppb)  brown(10R 5/4); very fine grained to coarse grained, angular to subround; some granule to small pebbles, subangular to subround; some silt; trace boulders; trace mica; coarser clast composed of conglomerate; moist; no odor; no staining								(197.0	202 0'\ Silty sand with	n graval (SM): w	reak red / nale	raddich		
		108	IRZ-13-SS- 195-200	197-202		SM		brown(1 subrour some si	0R 5/4); very fine graind; some granule to sn lt; trace boulders; trac	ined to coarse g mall pebbles, sul e mica; coarser	rained, angula bangular to su	r to bround;		
inotes. 0000 – Onlined boli Classification bystem, U – not detected above the laboratory reporting limit, ppb = Marts per Billon.	)		CC - Unific	d Soil Classif	ication Co	retom !!	_ not	dotocto	d above the leber	oton, roporti	na limit na	h - Dorto	nor Pillion	
	inoles:	US	oco = unitie	u ouii Ciassit	ication Sy	stern, U	– not (	uetecte(	above the labor	atory reportii	ng iimit, pp	u – Parts	per billion.	

AF	RCADIS	Design & Consultancy for natural and built assets		Bor	ing	Log		Sheet:	11 of	13
Date Start	ted: <u>11/17/</u>	2018		Surface	Eleva	tion: <u>N/A</u>	Bori	ina No.:	: <u>IRZ-13 I</u>	Pilot
	pleted: <u>12/05/</u>	2018		Northing	•	•				<u></u>
Drilling Co				Easting (	•	·	Client:	PG&E To	-	
Drilling Me		Drilling		Total De	•	<del>-</del>	Location:		ater Remedy	Phase I
Driller Nar		etrone		Borehole				Needles (	CA	
Drilling As	•	mer/J. Candel				Water: 24.5 ft bgs				
Logger:		rcia / J Gantt		Samplino	-		Project Nu	ımber: <u>RC</u>	000753.0051	
Editor:		McGrane		Sampling	-					
Weather:		Cloudy 46 to		Converte	ed to v	Vell: ☐ Yes ⊠ No				I
Depth (ft) Recovery	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	OSCS Code	USCS	Description			Drilling Notes	Drilling Fluid
		IRZ-13-VAS- 197-202 (<0.83 ppb)		SM		(200'); conglomerate boulder.  (201'); 6" gravel layer.				
202		(10.00 ppb)								
	IRZ-13-SS- 200-205					(202.0 - 209.5') Silty sand with gravel (SM); lig brown(5YR 6/4); very fine grained to very coal subangular; some silt; little granules to mediur	rse grained, a	ngular to		
203	18					subangular; trace mica; moist; no odor; no sta	aining			
_204										
205										
45										
206_				SM						
007										
207	IRZ-13-SS-									
208	205-210									
209										
PL06.6P						(209.5 - 224.5') Silty sand with gravel (SM); re	od (2 5VD 4/8)	: vory fino		
Z10						grained to very coarse grained, angular to sub to very large pebbles, angular to subangular;	pangular: som	e granules		(0.0 - 243.0') No water used
K DATABASE						angular; little mica; moist; no odor; weak ceme	entation; no st	taining		
10000										
212 10										
213_	IRZ-13-SS- 210-215									
IDOGS/GI										
214_										
215_				SM .						
10POO										
_216						(216'); 6" layer of metadiorite gravel.				
						-				
SRANEIC	IRZ-13-SS-									
_218	215-220									
- 10	8									
ჯ <b>219</b>										
1 3 3 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
220 Notes:	USCS = Unifie	d Soil Classifi	ication Sys	stem, U =	not c	letected above the laboratory reportir	ng limit, ppl	b = Parts p	per Billion.	<u>I</u>
BORING						· · · · · · · · · · · · · · · · · · ·		'		
SOILE		<u> </u>								

9/	\R(	CADIS	Design & Consultancy for natural and built assets		Во	ring Lo	g		Sheet	: 12 of	13
Date S		-				Elevation:	N/A	Bor	ina No.	: <u>IRZ-13</u>	Pilot
		eted: <u>12/05/</u>				g (NAD83):	N/A	_		<u> </u>	
Drilling		Casca			_	(NAD83):	N/A	Client:	PG&E To	-	
Drilling			<u>Drilling</u>			•	243 ft bgs	_ Location:		ater Remedy	Phase I
Driller			etrone			le Diameter:	· ·	-	Needles	CA	
Drilling		-	mer/J. Cande				: <u>24.5 ft bgs</u> 10 ft Core Barrel	- Droiget Nu	ımbarı DC	000753.0051	1
Logge Editor:			<u>rcia / J Gantt</u> McGrane		-	ng Method: ng Interval:	Continuous	_ Project Ni	imber: <u>RC</u>	,000/53.005	<u> </u>
Weath			Cloudy 46 to		•	ted to Well:	☐ Yes ⊠ No	-			
VVoati		<u>r artiy</u>	Oloudy 10 to		1						
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic	nscs Code	USCS	Description			Drilling Notes	Drilling Fluid
					014						
		IRZ-13-SS- 220-225			SM	(2231)	12" layer of metadiorite gravel.				
	108					(220),	12 layer of mediations grave.				
-						(224.5	- 227.0') Silty sand with gravel (SM); r	ed (2.5YR 4/6)	; very fine		
_225_							d to very coarse grained, angular to su r large pebbles, angular to subangular;				
13:45					SM	angula	er to subangular; little mica; wet; no odd	or; weak ceme	ntation		
_226_			IRZ-13-VAS-								
227_			224-229 (<0.83 ppb)								
9 - <del></del>		IRZ-13-SS-				(227.0	- 237.0') Topock - Weathered Bedrock h gravel (ML); red (2.5YR 5/8); low pla	c - conglomera	te; Sandy		
228		225-230				very co	par <mark>se gr</mark> ained sand, angular to subang pebb <mark>les,</mark> angular to subangular; dry to i	ular: little gran	ules to		
CADIS						cemer	ntation; no staining	moist, no odor,	weak		
ਫ਼ੂ 229_											
PLOG.0											
E 230						Palog					(0.0 - 243.0') No water used
ATABASE 1											
231_						Palo					
- 19/TOP				Topock -							
232_	108			Weathered Bedrock -	IVIL						
= - = 233_				conglomerat	ie						
10 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
234_											
.er 180.											
235_						[. ]					
236_						600					
237					-	(237 0	- 242.0') Topock - Weathered Bedrock	Condomera	te: Siltv		
ACGRA!						sand v	vith gravel (SM); red (2.5YR 4/8); very grained, angular to subangular; some	fine grained to	very		
238_			IRZ-13-VAS-	Topock -			pebbles, angular to subangular; little m				
SI CONDE	72		237-242 (<0.17 U ppb)	Weathered Bedrock -	SIVI	J. J	ਰ				
支 원 239_			(	conglomerat	ie						
240											
Notes:	US	CS = Unifie	d Soil Classi	fication Sy	stem, U	= not detecte	ed above the laboratory report	ing limit, pp	b = Parts	per Billion.	
BORIN											
SOIL											

9/	\R(	ADIS	Design & Consultancy for natural and built assets		Во	ring L	og		Sheet	: 13 of	13
Date S	Started	: <u>11/17/</u> 2	2018		Surface	Elevation:	N/A	Boi	rina No	: <u>IRZ-13</u>	Pilot
Date 0	Comple	eted: <u>12/05/</u> 2	2018		Northin	g (NAD83):		_	9 140.	. <u></u>	
Drilling	g Co.:	Casca	de			(NAD83):	N/A	_ Client:	PG&E To	pock	
Drilling	g Meth	od: <u>Sonic I</u>	Drilling		Total De	•	243 ft bgs	_ Location:	Groundw	ater Remedy	Phase I
Driller						e Diameter		-	Needles (	CA	
Drilling	g Asst:	-	ner/J. Cande		-		er: <u>24.5 ft bgs</u>	-			
Logge			cia / J Gantt			ng Method:	10 ft Core Barrel	Project N	umber: RC	000753.005	1
Editor			<u>//cGrane</u>			ng Interval:	Continuous	-			
Weath	er:	<u>Partly (</u>	Cloudy 46 to	74 F	Convert	ted to Well:	☐ Yes ⊠ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Description			Drilling Notes	Drilling Fluid
241	72		IRZ-13-VAS- 237-242 (<0.17 U ppb)	Topock - Weathered Bedrock - conglomerat	SIM						(0.0 - 243.0') No water used
_242_				Topock - Competent	:	(242 (10F	.0 - 243.0') Topock - Competent Bedrock R 5/8); dry	k - conglomer	ate; red		The Water deed
243				Bedrock - conglomerat	е	K//X	End of Boring at 243.0	'has			
							Elid of Bolling at 240.0	bgs.			
φZ4J								Ť			
246_							X				
247_											
248_											
249_											
250_											
251_											
					•						
254_											
5											
255_											
040											
256_											
MCGRAT											
258_											
75											
<u>259</u>											
Notes:	US	CS = Unified	d Soil Classif	ication Sys	stem, U	= not detec	ted above the laboratory report	ing limit, pr	ob = Parts <sub>I</sub>	per Billion.	
SORING											
ä				_							

# Attachment C Soil Sampling Locations and Available Soil Analytical Results

(Soil Data Presented in Excel File)



LEGEND

Soil Sample Location



# **Baseline and Opportunistic Soil Sampling Locations**

January 2019 Monthly Progress Report Groundwater Remedy Phase 1 Construction PG&E Topock Compressor Station, Needles, California



# Attachment D Perimeter Air Sampling Analytical Results



## **Attachment D. Perimeter Air Sampling Analytical Results**

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

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

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

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

- The LOCs, which represent conservative concentrations of compounds that receptors outside the work area could be safely exposed to during construction, have been evaluated for all compounds that have been detected in soil samples collected at the site in the prior investigations. The LOCs were developed using standard U.S. Environmental Protection Agency (USEPA) and California Environmental Protection Agency risk assessment methodology, toxicology data, and exposure assumptions (USEPA, 2009, 2017; California Department of Toxic Substances Control [DTSC], 2018). Both cancer and noncancer health effects were considered. For each type of health effect, the LOC was back-calculated from an established target or from acceptable cancer risk or noncancer hazard where USEPA or DTSC toxicity values are available. The LOCs for cancer effects are based on a target excess cancer risk of one in a million (1 × 10-6). The LOCs for noncancer effects are based on a target hazard quotient of 1. The LOCs were developed using these assumptions:
  - Receptors are present outside the perimeter of the work areas
  - Exposure via inhalation is 10 hours per day for a 10 days on /4 days off schedule
  - Duration of Phase 1 of the final groundwater remedy construction is 20 months
- The action level for fugitive dust monitoring is 100 micrograms per cubic meter (μg/m³) 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):

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

Where:

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

LOC = Project specific risk-based level of concern (μg/m³)

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 μg/m³ 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 µg/m³.
- Therefore, keeping fugitive dust below the action level 100 μg/m³ 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 2019, eight real time dust monitoring events were conducted at the perimeter of the work areas (outside of the exclusion zone). There was no temporary exceedance of the action level for fugitive dust monitoring (100  $\mu$ g/m3).

No perimeter air sampling for hexavalent chromium was conducted in January 2019.

#### **References Cited:**

California Department of Toxic Substances Control (DTSC). 2011. LeadSpread 8. <a href="https://www.dtsc.ca.gov/AssessingRisk/LeadSpread8.cfm">https://www.dtsc.ca.gov/AssessingRisk/LeadSpread8.cfm</a>.

California Department of Toxic Substances Control (DTSC). 2018. Human Health Risk Assessment Note 3 – DTSC-Modified Screening Levels (DTSC-SLs), California Department of Toxic Substances Control, Human and Ecological Risk Office (HERO). January.

CH2M HILL, Inc. (CH2M). 2015. Construction/Remedial Action Work Plan for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California. November 18.

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

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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.

U.S. Environmental Protection Agency (USEPA). 2017. Regional Screening Levels (RSLs)—Generic Tables. November.

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



### **Attachment E. Noise Monitoring Results**

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

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

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

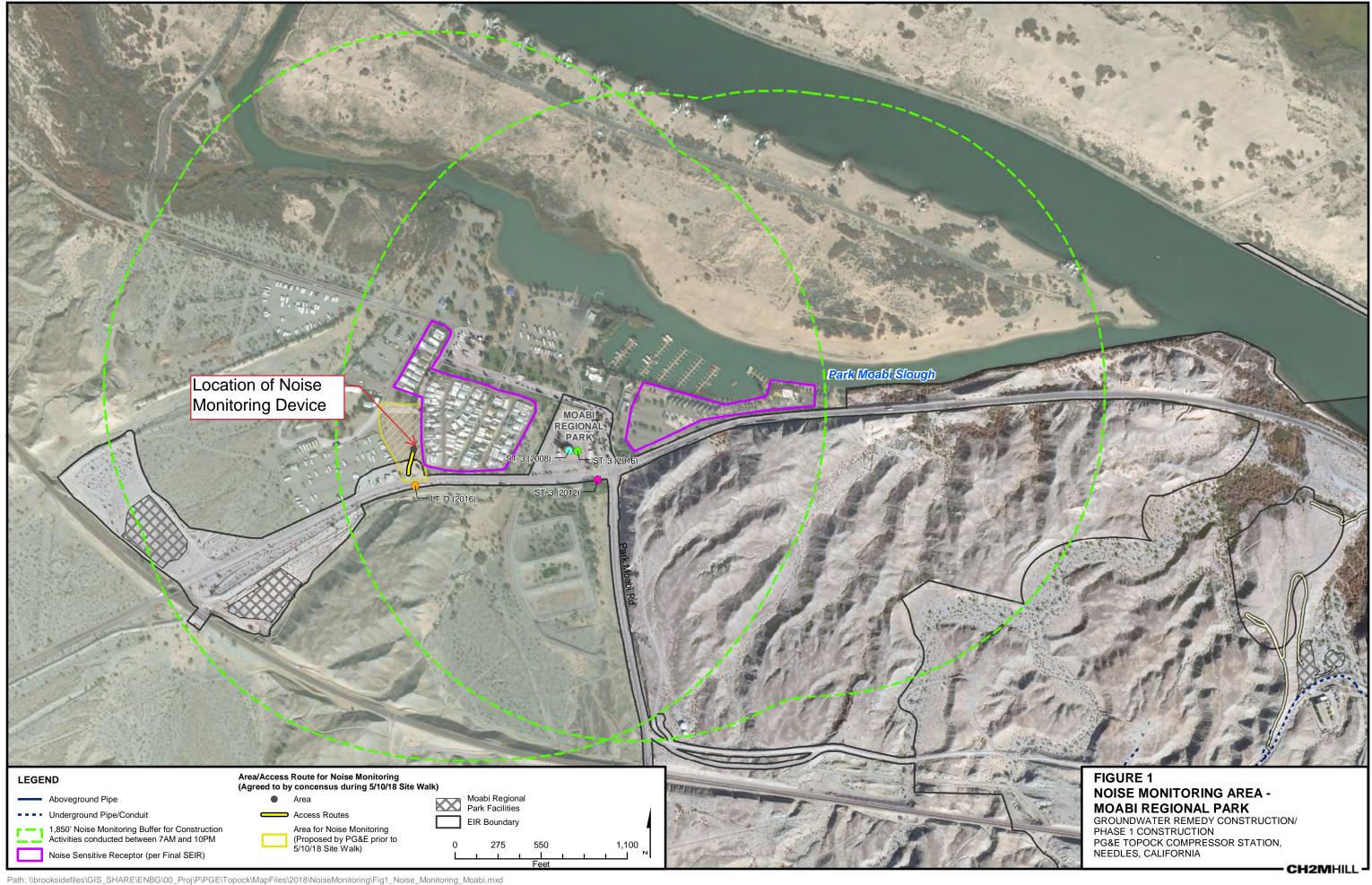
In January 2019, over 15 monitoring events have been conducted at the Park Moabi monitoring location (Figure 1). The sound level typically varied between 41 and 57 dBA.

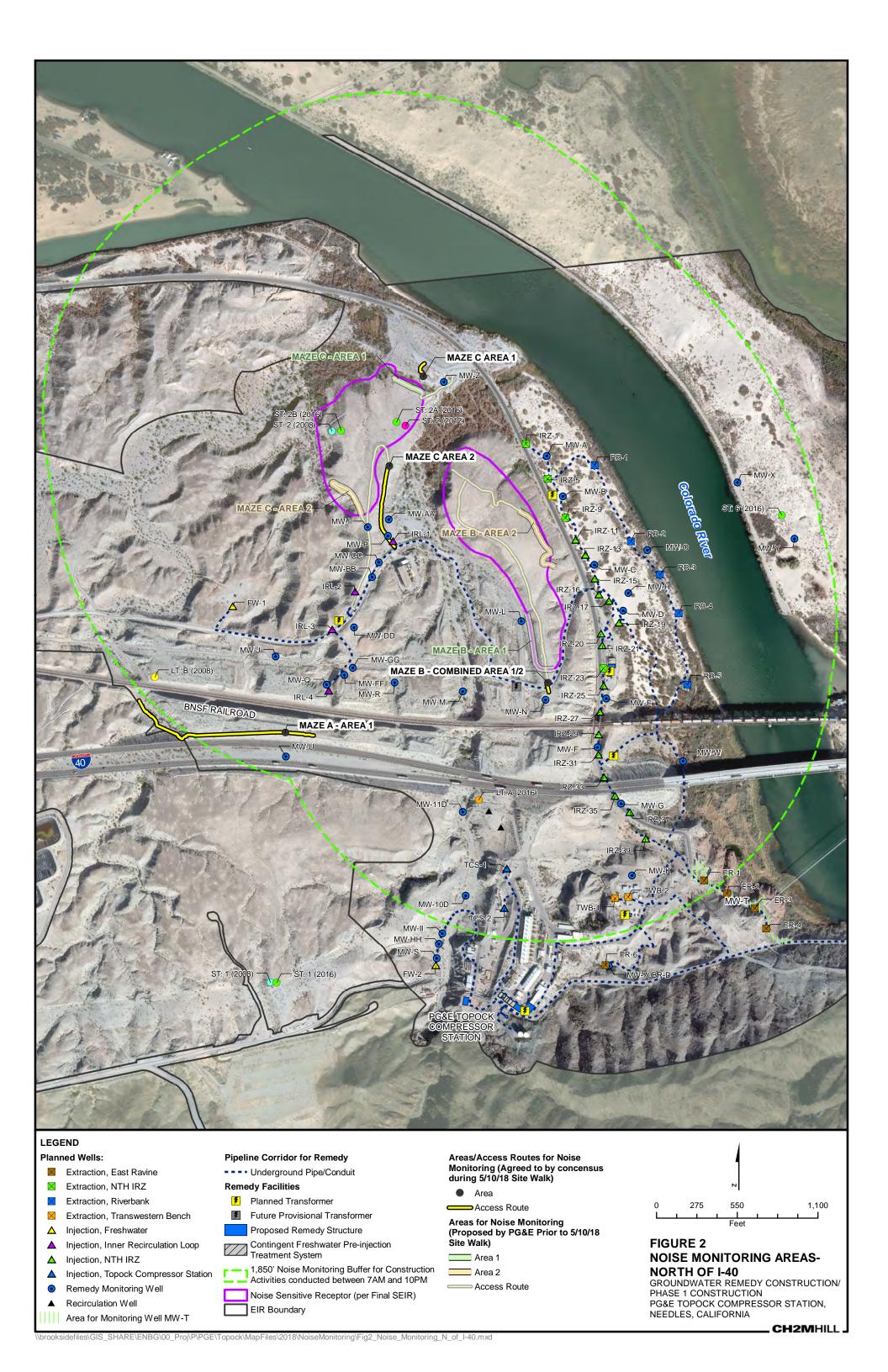
In January 2019, over 20 monitoring events have been conducted at Maze B-Combined Area 1/2 (Figure 2). Construction activities closest to this monitoring location include drilling activities at MW-N in the upland, drilling at MW-F along NTH, and activities on the MW-20 Bench. On two days (January 7 and 9), measurements at this location indicated sound levels up to 68 dBA. Sound barrier was installed around the MW-N drilling activities (see Attachment A Photographs). Outside of these two days, sound levels varied between 49 and 64 dBA.

In January 2019, 10 monitoring events have been conducted at Maze C-Area 1 (Figure 2). Construction activities closest to this monitoring location include drilling activities at MW-B and IRZ-9, vegetation clearance, as well as other activities in the northern end of the floodplain. One measurement resulted in 65 dBA while the water truck was in the vicinity and the remainder were lower.

There have been no complaints resulting from project construction-related noise. Noise monitoring conducted in January 2019 identified a short-term exceedance of the noise standard on two days (January 7 and 9). The exceedance was due to drilling activities at MW-N. Temporary acoustical barriers installed as directed in SEIR mitigation measure NOISE-2. Monitoring will continue as work progresses and moves into new areas to identify when an acoustical barrier needs to be considered.

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Attachment F Six-Week Look-Ahead Schedule (February 6 through March 16, 2019)

PG&E Topock Final Groundwater Remedy	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Primary Planned Activities	2/3/2019	2/4/2019	2/5/2019	2/6/2019	2/7/2019	2/8/2019	2/9/2019
	No Work	No Work	No Work	Mobilization Activities	Mobilization Activities	Mobilization Activities	
Primary Planned Activities	2/10/2019	2/11/2019	2/12/2019	2/13/2019	2/14/2019	2/15/2019	2/16/2019
Start Time (PST)		7:00 AM	7:00 AM				
construction Headquarters		CHQ conduit installation	CHQ conduit installation				
Soil Processing Yard (D1)			Perimeter Fence Install	Perimeter Fence Install	Perimeter Fence Install	Perimeter Fence Install	
Pipeline alignment grubbing, clearing & potholing E5, F5, G5, F6		Pending ERTC Pipeline C8, C9, C10, C14, C17					
IM3 Brine Tank Upgrade (E5)						Continued brine tank upgrades - tasks TBD	Continued brine tank upgrades - tasks TBD
Primary Planned Activities	2/17/2019	2/18/2019	2/19/2019	2/20/2019	2/21/2019	2/22/2019	2/23/2019
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM
Soil Processing Yard (D1)		Perimeter Fence Install					
Construction Headquarters E1		Site-wide clearing & grading					
Pipeline alignment grubbing, clearing & potholing E5, F5, G5, F6		Pending ERTC Pipeline C8, C9, C10, C14, C17					
Well Installation		-	MW-N (F5), MW-G (F5), MW-B (E5)	MW-N (F5), MW-G (F5), MW-B (E5)			
IM3 Brine Tank Upgrade (E5)	Continued brine tank upgrades - tasks TBD					Continued brine tank upgrades - tasks TBD	Continued brine tank upgrades - tasks TBD
Primary Planned Activities	2/24/2019	2/25/2019	2/26/2019	2/27/2019	2/28/2019	3/1/2019	3/2/2019
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	
Soil Processing Yard (D1)		Perimeter Fence Install					1
Construction Headquarters E1		Rip rap installation					
Subsurface Clearance Potholing E5, F5		Pipeline C1 - C6					
Pipeline alignment grubbing, clearing & potholing F5		Pending ERTC Pipeline C5, C7					
Pre-Trenching/Excavation Potholling		Pending ERTC Potholing,	1				
and Characterization (F5)		Air-vac @ MW-20 Bench					
Well Installation	MW-N (F5), MW-G (F5), MW-B (E5)	MW-N (F5), MW-G (F5), MW-B (E5)	MW-N (F5), MW-G (F5), MW-B (E5)	MW-N (F5), MW-G (F5), MW-B (E5)	MW-N (F5), MW-G (F5), MW-B (E5)		
IM3 Brine Tank Upgrade (E5)	Continued brine tank upgrades - tasks TBD					Continued brine tank upgrades - tasks TBD	Continued brine tank upgrades - tasks TBD
Primary Planned Activities	3/3/2019	3/4/2019	3/5/2019	3/6/2019	3/7/2019	3/8/2019	3/9/2019
Start Time (PST)		7:00 AM	7:00 AM				
Pre-Trenching/Excavation Potholling		Pending ERTC Potholing,					
and Characterization (F5), (G5)		Air-vac @ C6, C9, C13 & C17					
Pipeline C Installation E5		Pipeline C4					
Well Installation		=	MW-N (F5), IRZ-27 (F5), MW-B (E5), IRZ-20 (F5)	MW-N (F5), IRZ-27 (F5), MW-B (E5), IRZ-20 (F5)			
IM3 Brine Tank Upgrade (E5)	Continued brine tank upgrades - tasks TBD					Continued brine tank upgrades - tasks TBD	Continued brine tank upgrades - tasks TBD
Primary Planned Activities	3/10/2019	3/11/2019	3/12/2019	3/13/2019	3/14/2019	3/15/2019	3/16/2019
Start Time (PST)	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	7:00 AM	No Work
Pre-Trenching/Excavation Potholling and Characterization (F5), (G5)		Pending ERTC Potholing, Air-vac @ C6, C9, C13 & C17	Pending ERTC Potholing, Air-vac @ C6, C9, C13 & C17	Pending ERTC Potholing, Air-vac @ C6, C9, C13 & C17	Pending ERTC Potholing, Air-vac @ C6, C9, C13 & C17	Pending ERTC Potholing, Air-vac @ C6, C9, C13 & C17	
Pipeline C Installation		Pipeline install at C4,	1				
E5, F5		Stabilization matting install at C7	1				
Well Installation	MW-N (F5), IRZ-27 (F5), MW-D (E5), IRZ-20 (F5)	MW-N (F5), MW-W (F5), MW-D (E5), IRZ-20 (F5)	MW-N (F5), MW-W (F5), MW-D (E5), IRZ-20 (F5)	MW-N (F5), MW-W (F5), MW-D (E5), IRZ-20 (F5)	MW-N (F5), MW-W (F5), MW-D (E5), IRZ-25 (F5)		]
IM3 Brine Tank Upgrade (E5)	Continued brine tank upgrades - tasks TBD	- 1 - 7	2.3.27	* * **	- 1 - 1	Continued brine tank upgrades - tasks TBD	Continued brine tank upgrades - tasks TBD
		seed on site conditions field progress of	L		l .	1	.00

Note - 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.

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



## **Attachment G. Available Groundwater Monitoring Data**

Pursuant to Condition of Approval # xi in DTSC's approval letter dated August 24, 2018 (DTSC, 2018a), PG&E is required to report data from samples collected as part of the sitewide groundwater monitoring program within 60 days of sample collection. In compliance with this requirement, PG&E initially submitted validated data to DTSC via monthly emails. For ease of recordkeeping and to minimize the number of adhoc compliance reports/emails, PG&E has since included validated data in each monthly progress report starting with the November 2018 report. The following pages contain the validated data for groundwater samples collected from December 4 to 13, 2018.

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100	-500 1072760	TO AN A COMPANY OF THE SECOND STREET, AND A SECOND	A-14-1		<i></i>	-	I N		_		_		-	_	_	_	_	
$\wedge$ $\wedge$ $\wedge$		ADIS Design & Consultate for natural and built assets	ncv		Filtered:	F	N	F	F	F	F	F	F	F	F	F	F	F
	J	for natural and			Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
	V	huilt assets					Oxygen and											
	. •	Dunc abocts					Deuterium											
CN4D 2040 4	2 6	- I:			Description:	Hexavalent	Stable	Antimony,	Arsenic,	Barium,	Beryllium,	Boron,	Cadmium,	Calcium,	Cobalt,	Copper,	Iron,	Lead,
GMP 2018-1	L2 Samp	oling				Chromium	Isotopes	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
					Method:	EPA 218.6	CFIRM	SW 6020	SW 6020	SW 6020	SW 6020	SW 6010B	SW 6020	SW 6010B	SW 6020	SW 6010B	SW 6010B	SW 6020
					Units:	ug/L	0/00	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample	1			Date													
Location ID	Type	Sample ID	Parent Sample	Matrix	Collected													
MW-09	N	MW-09-Q418		GW	12/12/18	140			1.7			0.72		130			69	
MW-10	N	MW-10-Q418		GW	12/12/18	110		ND (0.5)	2.2	49	ND (0.5)	0.78	ND (0.5)	140	ND (0.5)	ND (1.0)	29	ND (1.0)
MW-11	N	MW-11-Q418		GW	12/12/18	47		ND (0.5)	1.4	7.7	140 (0.5)	0.43	110 (0.5)	130	ND (0.5)	ND (1.0)	ND (20)	ND (1.0)
			MM 11 0410															
MW-11	FD	MW-903-Q418	MW-11-Q418	GW	12/12/18	47			1.3			0.44		140			ND (20)	
MW-12	N	MW-12-Q418		GW	12/11/18	1,500		ND (0.5)	40	45	ND (2.5)	1.2	ND (0.5)	42	ND (0.5)	ND (1.0)	180	ND (1.0)
MW-13	N	MW-13-Q418		GW	12/04/18	22			2			0.42		120			ND (20)	
MW-14	N	MW-14-Q418		GW	12/11/18	13		ND (0.5)	0.7	180	ND (0.5)	0.34	ND (0.5)	160	ND (0.5)	ND (1.0)	ND (20)	ND (1.0)
MW-15	N	MW-15-Q418		GW	12/11/18	16						0.29	_	150			ND (20)	
MW-18	N	MW-18-Q418		GW	12/06/18	19						ND (0.19)		80			ND (20)	
MW-19	N	MW-19-Q418		GW	12/10/18	670						0.4		88			120	
MW-20-070	N	MW-20-070-Q418	1	GW	12/10/18	1,600	-8.17					0.47		63			ND (20)	
	IN		MW 20 070 0410															
MW-20-070	FD	MW-905-Q418	MW-20-070-Q418	GW	12/11/18	1,600	-8.33					0.47		65			ND (20)	<b></b>
MW-20-100	N	MW-20-100-Q418		GW	12/04/18	1,400	-8.31					0.9		110			ND (20)	
MW-20-130	N	MW-20-130-Q418		GW	12/04/18	5,800	-7.2		4.6			2.3		280			21	
MW-21	N	MW-21-Q418		GW	12/12/18	1.1						4		210			ND (20)	
MW-21	EB	MW-21-EB-Q418		GW	12/11/18	ND (0.2)												
MW-22	N	MW-22-Q418		GW	12/04/18	ND (1.0)	-10.66	ND (2.5)	13	95	ND (2.5)	3.1	ND (2.5)	860	2.3	ND (1.0)	10,000	ND (5.0)
MW-22	FD	MW-906-Q418	MW-22-Q418	GW	12/04/18	ND (1.0)	-10.65	ND (2.5)	15	93	ND (2.5)	3	ND (2.5)	850	2.6	ND (1.0)	11,000	ND (5.0)
MW-23-060	N N	<u> </u>	111V-22-Q+10	GW	12/11/18	` '	-10.03	ND (2.3)		93	ND (2.3)	0.79 J	ND (2.3)	830	2.0	ND (1.0)	ND (100)	ND (3.0)
	IN N	MW-23-060-Q418				39			4.6									
MW-23-080	N	MW-23-080-Q418		GW	12/11/18	ND (1.0)			5.5			0.85		760			ND (100)	
MW-24A	N	MW-24A-Q418		GW	12/12/18	ND (0.2)		ND (0.5)	0.28	24	ND (0.5)		ND (0.5)		ND (0.5)	ND (1.0)		ND (1.0)
MW-24B	N	MW-24B-Q418		GW	12/12/18	160		ND (0.5)	3.3	69	ND (2.5)		ND (0.5)		ND (0.5)	ND (1.0)		ND (1.0)
MW-24BR	N	MW-24BR-Q418		GW	12/13/18	ND (1.0)			0.41			2.1		110			180	
MW-25	N	MW-25-Q418		GW	12/10/18	100	-8.75		1.2			0.34		120			ND (20)	
MW-25	FD	MW-907-Q418	MW-25-Q418	GW	12/10/18	100	-9.09		1.2			0.33		120			22	
MW-26	N N	MW-26-Q418	11W 23 Q 110	GW	12/07/18	2,200	-8.21	ND (0.5)	1.8	34	ND (0.5)	1	ND (0.5)	150	ND (0.5)	ND (1.0)	70 J	ND (1.0)
	NI NI			GW			-0.21	ND (0.3)		77	ND (0.3)	ND (0.13)	ND (0.3)		ND (0.3)	ND (1.0)		ND (1.0)
MW-27-020	<u>IN</u>	MW-27-020-Q418			12/05/18	ND (0.2)			0.95			ND (0.12)		71			23	
MW-27-020	EB	MW-27-020-EB-Q418		GW	12/05/18	ND (0.2)												
MW-27-060	N	MW-27-060-Q418		GW	12/05/18	ND (0.2)			11			ND (0.14)		82			590	
MW-27-060	EB	MW-27-060-EB-Q418		GW	12/05/18	ND (0.2)												
MW-27-085	N	MW-27-085-Q418		GW	12/05/18	ND (1.0)			1.5			1.1		230			55	L
MW-27-085	EB	MW-27-085-EB-Q418		GW	12/05/18	ND (0.2)	1											
MW-28-025	N	MW-28-025-Q418		GW	12/14/18	ND (0.2)	1		0.66			ND (0.18)		98			ND (20)	
MW-28-025	EB	MW-28-025-EB-Q418		GW	12/14/18	ND (0.2)						(31-2)					(/	
MW-28-090	N N	MW-28-090-Q418		GW	12/14/18	ND (0.2)			3			0.67		170			1,000	
			+				<del> </del>		J			0.07		1/0			1,000	
MW-28-090	EB	MW-28-090-EB-Q418		GW	12/14/18	ND (0.2)			7.0			0.00		60			4 4 0 0	<b> </b>
MW-29	N	MW-29-Q418		GW	12/10/18	ND (0.2)			7.8			0.37		88			1,100	
MW-29	EB	MW-29-EB-Q418		GW	12/10/18	ND (0.2)												
MW-30-030	N	MW-30-030-Q418		GW	12/06/18	ND (0.2)			1.6			1.9 J		87			820 J	
MW-30-030	EB	MW-30-030-EB-Q418		GW	12/06/18	ND (0.2)	1											
MW-30-050	N	MW-30-050-Q418		GW	12/06/18	ND (0.2)	-12.2		2.8			ND (0.17)		79			68 J	
MW-30-050	FD	MW-908-Q418	MW-30-050-Q418	GW	12/06/18	ND (0.2)	-12.5		2.8			ND (0.17)		83			64 J	
MW-31-060	NI	MW-31-060-Q418	114 20 020 Q-10	GW	12/10/18	390	-8.82		1.1			0.49		150			61	
	IN																	$\vdash$
MW-31-135	N	MW-31-135-Q418		GW	12/10/18	14	-9.53		3.6			1.3		340			61	
MW-32-020	N	MW-32-020-Q418		GW	12/04/18	ND (1.0)			2.5			4.9		300			5,200	
MW-32-020		MW-32-020-EB-Q418		GW	12/04/18	ND (0.2)												
MW-32-035	N	MW-32-035-Q418		GW	12/04/18	ND (1.0)	-10.99		19			0.91		400			7,200	
		· ·	=	-			=	-	- '		-	-	=	- '	=	=	- •	

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$\wedge$ $\wedge$ $\wedge$ $\wedge$		ADIS Design & Consultar for natural and built assets	ncy		Filtered:	F	N	F	F	F	F	F	F	F	F	F	F	F
	J	for natural and			Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
	V	huilt assets					Oxygen and											
					5		Deuterium											
CNAD 2010 1	2 Cama	alia a			Description:	Hexavalent	Stable	Antimony,	Arsenic,	Barium,	Beryllium,	Boron,	Cadmium,	Calcium,	Cobalt,	Copper,	Iron,	Lead,
GMP 2018-1	.z sam	oling				Chromium	Isotopes	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
					11-46-4		CFIRM		SW 6020		SW 6020		SW 6020			SW 6010B	SW 6010B	SW 6020
					Method:	EPA 218.6	_	SW 6020		SW 6020		SW 6010B		SW 6010B	SW 6020			
					Units:	ug/L	0/00	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample	•			Date													
Location ID	Type	Sample ID	Parent Sample	Matrix	Collected													
MW-32-035	EB	MW-32-035-EB-Q418		GW	12/04/18	ND (0.2)												
MW-33-040	N	MW-33-040-Q418		GW	12/07/18	ND (1.0)	-9.61		11			3.4		71			ND (100 J)	
MW-33-040	EB	MW-33-040-EB-Q418		GW	12/07/18	ND (0.2)	5.01					<u> </u>					112 (2000)	
MW-33-090	N	MW-33-090-Q418		GW	12/07/18	1.2	-10.05		0.98			1.2		300			110 J	
	IN N																58 J	
MW-33-150	IN	MW-33-150-Q418		GW	12/07/18	3.9	-10.49		1.4			1.1		360				
MW-33-210	N	MW-33-210-Q418		GW	12/07/18	6.7	-10.77		1.1			1.6		530			ND (100 J)	
MW-34-055	N	MW-34-055-Q418		GW	12/05/18	ND (0.2)	-12.29		2.2			ND (0.12)		74			54	
MW-34-055	FD	MW-910-Q418	MW-34-055-Q418	GW	12/05/18	ND (0.2)	-12.29		2.2			ND (0.11)		73			57	
MW-34-055	EB	MW-34-055-EB-Q418		GW	12/05/18	ND (0.2)												
MW-34-080	N	MW-34-080-Q418		GW	12/05/18	ND (1.0)	-11.14		1.5			1		280			140	
MW-34-080	EB	MW-34-080-EB-Q418	1	GW	12/05/18	ND (0.2)	1					<u> </u>					0	
MW-34-100	N	MW-34-100-Q418	<del> </del>	GW	12/05/18	ND (0.2) ND (1.0)	-11.24		1.6			1.7		170			83	
	IN	7	-			. ,		ND (0.5)		72	ND (0.5)		ND (0.5)		ND (0 E)	ND (1 0 1)		ND (1.0)
MW-35-060	- IN	MW-35-060-Q418	-	GW	12/10/18	20	-9.61	ND (0.5)	1.1	73	ND (0.5)	0.72	ND (0.5)	250	ND (0.5)	ND (1.0 J)	71	ND (1.0)
MW-35-135	N	MW-35-135-Q418		GW	12/10/18	25	-10.51	ND (0.5)	0.93	37	ND (2.5)	0.78	ND (0.5)	310	ND (0.5)	ND (1.0)	200	ND (1.0)
MW-36-020	N	MW-36-020-Q418		GW	12/06/18	ND (0.2)			2.2			1.1		79			630 J	
MW-36-040	N	MW-36-040-Q418		GW	12/06/18	ND (0.2)			4.7			0.21		44			400 J	
MW-36-050	N	MW-36-050-Q418		GW	12/06/18	ND (0.2)			5.2			ND (0.16)		81			130 J	
MW-36-070	N	MW-36-070-Q418		GW	12/06/18	ND (0.2)			4.8			ND (0.16)		50			570 J	
MW-36-090	N	MW-36-090-Q418		GW	12/06/18	ND (0.2)	-12.21		3.7			0.58		150			ND (20 J)	
MW-36-090	FD	MW-911-Q418	MW-36-090-Q418	GW	12/06/18	ND (0.2)	-11.93		3.8			0.6		150			24 J	
MW-36-100	N N	MW-36-100-Q418	111V-30-030-Q+10	GW	12/06/18	3.3	-11.93		3.4			0.8		160			200 J	
	IN N	1					-12.3		3.4									
MW-37D	IN .	MW-37D-Q418		GW	12/06/18	5.1						1.6		330			ND (20)	
MW-37S	N	MW-37S-Q418		GW	12/06/18	12			1.7			0.68		200			ND (20)	
MW-38D	N	MW-38D-Q418		GW	12/12/18	20			7.9			2.8		400			ND (100)	
MW-38D	N	MW-38D-SMT-Q418		GW	12/12/18	21			7.9			2.8		400			ND (100)	
MW-38S	N	MW-38S-Q418		GW	12/12/18	3.9			6.4			0.72		26			ND (20)	
MW-38S	N	MW-38S-SMT-Q418		GW	12/12/18	4.2			6			0.76		28			22	
MW-39-040	N	MW-39-040-Q418		GW	12/06/18	ND (0.2)			17									
MW-39-050	N	MW-39-050-Q418	1	GW	12/06/18	ND (0.2)	<del> </del>		1.9		1	ND (0.16)		69			ND (20 J)	
MW-39-060	N	MW-39-060-Q418	1	GW	12/06/18	ND (0.2)	<del> </del>		3			ND (0.10)		47			ND (20 J)	
	IN	1	-				12.20		<u>3</u>		-							
MW-39-070	IN	MW-39-070-Q418	NAV 20 072 0442	GW		ND (0.2)	-12.36					0.26		47			ND (20 J)	
MW-39-070			MW-39-070-Q418		12/06/18	ND (0.2)	-12.53					0.26		47			ND (20 J)	
MW-39-080	N	MW-39-080-Q418		GW	12/06/18	1.2	-11.55					0.64		110			ND (20 J)	
MW-39-100	N	MW-39-100-Q418		GW	12/06/18	63	-11.09		2.4			1.6		260			ND (20 J)	
MW-40D	N	MW-40D-Q418		GW	12/12/18	140			4.8			1.9		410			ND (20)	
MW-40D	N	MW-40D-SMT-Q418		GW	12/12/18	ND (1.0)			4			1.7		380			69	
MW-40S	N	MW-40S-Q418		GW	12/12/18	11			1.9									
MW-40S	N	MW-40S-SMT-Q418	<del> </del>	GW	12/12/18	17	<del> </del>		3.4		1							
MW-41D	N	MW-41D-Q418	<del> </del>	GW	12/12/18	ND (1.0)	<del> </del>		2.3			2		430			ND (100)	
	IN I		-				<del> </del>				-							<u> </u>
MW-41M	IN	MW-41M-Q418		GW	12/11/18	8.4	<del> </del>		2.2			1.3		420			38	
MW-41S	N	MW-41S-Q418		GW	12/07/18	9.4			1.6			0.87		180			22 J	
MW-41S	FD		MW-41S-Q418	GW	12/07/18	9.3			1.6			0.87		180			22 J	
MW-42-030	N	MW-42-030-Q418		GW	12/05/18	ND (1.0)	-12.74		2.6									
MW-42-030	FD		MW-42-030-Q418	GW	12/05/18	ND (1.0)	-12.61		2.4									
MW-42-055	N	MW-42-055-Q418		GW	12/05/18	ND (0.2)	-12.95		25		1	0.19		5.9			43	
MW-42-055		MW-42-055-EB-Q418		GW	12/05/18	ND (0.2)					1							
MW-42-065		MW-42-065-Q418	<del> </del>	GW			-12.78		8.4			0.36		57			30	
11101-42-003	IV	11100-42-003-Q418	I	GW	12/03/18	ND (0.2)	-12./0	I	0.4		I	0.50	I	J 2/			30	

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Description	$\wedge$ $\wedge$ $\wedge$		Design & Consultar	ncy			•		F	F		· ·	F	F	•	F	F		-
Description		J	for natural and			Lab:	ASSET		ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
Description		V	<b>Duilt assets</b>					Oxygen and											
Memory   M						5		Deuterium											
Section 10   Property   Propert	CMD 2010 1	2 Came	aling			Description:	Hexavalent	Stable	Antimony,	Arsenic.	Barium,	Bervllium,	Boron.	Cadmium,	Calcium.	Cobalt.	Copper.	Iron.	Lead.
New York   Part   Par	GIVIP 2018-1	.Z Samp	Jiilig						,,	,	,		-	,	,	•		,	, ,
Control 10   Type						Mathadi		•											
Sample   Date   Date								_											
	_						ug/L	0/00	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
March   1965   Fis   WW-4-105-CP-18   GW   12/05/18   NO (12)   T5   NO (12)		-																	
PROM_STATES    No.   PROM_STATES  PART   PRO	Location ID	Type	Sample ID	Parent Sample	Matrix	Collected													
6000-4-50-55   63   600-4-50-5-6-18   600   1205/18   100   12   1.2   250   5.500	MW-42-065	EB	MW-42-065-EB-Q418		GW	12/05/18	ND (0.2)												
6000-4-50-55   63   600-4-50-5-6-18   600   1205/18   100   12   1.2   250   5.500	MW-43-025	N	MW-43-025-O418		GW	12/05/18	ND (0.2)			25			ND (0.12)		120			3,500 J	
Mary		FB			GW								` ´					,	
MW-4-990   EB   MW-4-990-64-041B   GW   12/95/18   NO (0.2)   EB   GW   12/95/18   NO (0.2)   E		N								12			1 2		290			5 500	
Myst		ER								12			1,2		250			3,300	
MV-44-070   FB   MV-44-070-EP-CH18										2.2			2.5		450			1 000	
MV-4-1070   N   MV-4-1070-0118		- ''								3.2			2.5		450			1,800	
MW-4-170    St.   MW-4-170-EP-0418   GW   1205/18   NO (0.2)   1.05   1.3   97   NO (2.0)		FR																	
Move-4-115   N   Move-4-115-Q-18   GW   1705/18   6-4   -10.59   5.2   1.3   97   No (70)		N						-12		3.3			0.22		63			420	
MW-4+125   C		EB																	
MW-4-125   FD		N			GW			-10.59		5.2			1.3		97			ND (20)	
MW-4-125   FD	MW-44-125	N	MW-44-125-Q418		GW	12/05/18	ND (1.0)	-12		4.5			1.2		81			170	
MV-4-125   EB   MV-4-125-EB-0418   GW   12/39/18   Ro (2)		FD		MW-44-125-0418															
MW-49-175   N   MW-46-175-Q-118   GW   12/13/18   Ro   Ro   Ro   Ro   Ro   Ro   Ro   R								† <del></del>											
MW-49-205   N				†				-10 51					2.3		120			ND (100)	
MW-47-055   N   MW-47-055-Q418		NI NI						-10.51											
MW-47-115   N   MW-47-115-Q418   MW-48-Q418   MW-47-115-Q418   MW 12/10/18   15   -10.16		IN N						0.47		4.3									
MW-47-115   FD		- ' '								1.3									
MW-84																			
MW-9-135   N   MW-9-135-E0-18   GW   12/10/18   N   D(0.2)   D   D   D   D   D   D   D   D   D		FD		MW-47-115-Q418				-10.63					1.2						
MW-9-135   EB   MW-9-135-EB-Q-148   GW   12/10/18   ND (0.2)   ND (0.2)   NW-9275   EB   MW-9-275-Q-148   GW   12/10/18   ND (0.2)   ND (0.2)   NW-9275   EB   MW-9-275-Q-148   GW   12/10/18   ND (0.2)   ND (0.2)   NW-9275-Q-148   GW   12/10/18   ND (0.2)   NW-9275-Q-148   ND (0.2)   ND (0.2)   ND (0.2)   NW-9275-Q-148   ND (0.2)   ND (0.2)   ND (0.2)   ND (0.2)   ND (0.2)   NW-9275-Q-148   ND (0.2)   N	MW-48	N	MW-48-Q418		GW	12/13/18	ND (1.0)						1.1		360			ND (100)	
MW-9-135   EB   MW-9-135-EB-Q-118   GW   12/10/18   ND (0.2)   ND (1.0)   1-10.45	MW-49-135	N	MW-49-135-Q418		GW	12/10/18	2.2	-10.49		2.1			0.84 J		320			28	
MW-9-275   N   MW-9-275-(9418   GW   12/10/18   ND (1.0)   -10.45	MW-49-135	EB			GW		ND (0.2)												
MW-9275   EB   MW-9275-EB-0418   GW   12/10/18   ND (0.2)		N						-10 45					2.7		240			150	
MW-9365   N   MW-9365-Q418   GW   12/10/18   ND (5.0)   -10.91		FR						10.15					2.,,		210			150	
MW-9-365   EB   MW-9-365-EB-Q418   GW   12/10/18   ND (0.2)   NW-50-2095-Q418   GW   12/10/18   3,100   2   490   ND (100)								10.01					12		260			410	
MW-50-095   N   MW-50-095-Q418   GW   12/10/18   13								-10.91					4.3		300			410	
MW-50-200   N   MW-50-200-Q418   GW   12/10/18   3,100																			
MW-51		N			_														
NW-52D   N   MW-52D-Q418   GW   12/04/18   ND (1.0)   D.41   D.73   NW-52M-Q418   GW   12/04/18   ND (1.0)   D.41   D.73   ND (1.0   D.73		N																ND (100)	
NW-52M   N   NW-52H-Q418   GW   12/04/18   ND (1.0)   0.41   1.7   410   1.300   1.300   NW-52S   N   NW-52S-Q418   GW   12/04/18   ND (1.0)   0.67   0.73   550   12,000   NW-53D   N   NW-53D-Q418   GW   12/04/18   ND (1.0)   0.57   2   370   510   NW-53M   N   NW-53H-Q418   GW   12/04/18   ND (1.0)   0.57   2   370   510   NW-53H-Q418   NW-57-070   N   NW-57-070-Q418   GW   12/04/18   ND (1.0)   0.57   2   370   510   NW-57-070-Q418   NW-57-070-Q418   GW   12/07/18   410   1.3   ND (0.17)   350   511   NW-57-185   N   NW-57-185-9-Q418   GW   12/07/18   6.4   9.6   2.5   340   ND (100 ) ND (100 ) NW-57-185   N   NW-57-185-15-Q418   GW   12/07/18   6.2   6.7   2.4   360   ND (100 ) ND (100 ) NW-57-185   N   NW-57-185-Q418   GW   12/07/18   5.4   4.1   2.5   400   ND (100 ) ND (100 ) ND (100 ) NW-58BR   N   NW-58BR-Q418   GW   12/07/18   3,100   ND (0.5)   2   70   ND (2.5)   1.3   ND (0.5)   700   ND (0.5)   ND (1.0)   ND (1.0)   NW-59-100   FD   NW-926-Q418   MW-59-100-Q418   GW   12/07/18   3,100   ND (0.5)   2   68   ND (2.5)   1.2   ND (0.5)   670   ND (0.5)   ND (1.0)   ND (2.0)   NW-60-125   N   NW-60-125-Q418   GW   12/06/18   980   1.3   ND (0.5)   2.2   420   ND (0.5)   ND (1.0)   ND (2.0)   NW-60-125   N   NW-60BR-245   N   NW-60BR-245   N   NW-60BR-245   N   NW-60BR-245   N   S   S   S   S   S   S   S   S   S	MW-51	N	MW-51-Q418		GW	12/10/18	3,300			4			1.6		310			62	
NW-52S   N   NW-52S-Q418   GW   12/04/18   ND (1.0)   0.67   0.73   550   12,000	MW-52D	N	MW-52D-Q418		GW	12/04/18	ND (1.0)			2			2.5		280			930	
NW-52S   N   NW-52S-Q418   GW   12/04/18   ND (1.0)   0.67   0.73   550   12,000		N			GW					0.41									
N		N																	
MW-53M   N   MW-53M-Q418   GW   12/04/18   ND (1.0)   ND (0.57   D 2   370   S10   NM-57-070   N   MW-57-070-Q418   GW   12/07/18   410   S13   ND (0.17)   330   ND (0.17)   NM-57-185   N   MW-57-185   N   MW-59-108   N   N   N   N   N   N   N   N   N		N						<u> </u>											
MW-57-070   N   MW-57-070-Q418   GW   12/07/18   410   1.3   ND (0.17)   350   51								<del> </del>											
MW-57-185         N         MW-57-185-3V-Q418         GW         12/07/18         6.4         9.6         2.5         340         ND (100 J)           MW-57-185         N         MW-57-185-LF_D-Q418         GW         12/07/18         6.2         6.7         2.4         360         ND (100 J)           MW-57-185         N         MW-57-185-LF_D-Q418         GW         12/07/18         5.4         4.1         2.5         400         ND (100 J)           MW-58BR         N         MW-58BR-Q418         GW         12/13/18         10         1.9         1.0 J         530         ND (0.5)         ND (20)           MW-59-100         N         MW-59-10-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         ND (0.5)         ND (1.0)           MW-59-100         FD         MW-926-Q418         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         ND (0.5)         ND (1.0)         ND (1.0)           MW-60125         N         MW-608R-2418         GW         12/06/18         980         1.3         0.74         600         <				<del> </del>				<del> </del>											
MW-57-185         N         MW-57-185-LF_D-Q418         GW         12/07/18         6.2         6.7         2.4         360         ND (100 J)           MW-57-185         N         MW-57-185-LF_S-Q418         GW         12/07/18         5.4         4.1         2.5         400         ND (100 J)           MW-58BR         N         MW-58BR-Q418         GW         12/13/18         10         1.9         1.0 J         530         ND (20)           MW-59-100         N         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         ND (0.5)         ND (1.0)           MW-59-100         FD         MW-926-Q418         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         ND (0.5)         ND (1.0)           MW-60-125         N         MW-60-125-Q418         GW         12/06/18         3,100         ND (0.5)         2         68         ND (2.5)         1.2         ND (0.5)		- '	1	1				<del> </del>											
MW-57-185         N         MW-57-185-LF_S-Q418         GW         12/07/18         5.4         4.1         2.5         400         N         ND (100 J)           MW-58BR         N         MW-58BR-Q418         GW         12/13/18         10         1.9         1.0 J         530         ND (0.5)         ND (20)           MW-59-100         N         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         700         ND (0.5)         ND (1.0)         200 J         ND (1.0)           MW-59-100         FD         MW-926-Q418         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         700         ND (0.5)         ND (1.0)         200 J         ND (1.0)           MW-60-125         N         MW-60-125-Q418         GW         12/06/18         980         1.3         0.74         600         ND (0.5)         ND (1.0)         ND (20)           MW-60BR-245         N         MW-60BR-245-3V-Q418         GW         12/06/18         110         8.2         2.2         420         ND (20 J)           MW-60BR-245		IN						<del> </del>											
MW-58BR         N         MW-58BR-Q418         GW         12/13/18         10         1.9         1.0 J         530         ND (20)           MW-59-100         N         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         700         ND (0.5)         ND (1.0)         200 J         ND (1.0)           MW-59-100         FD         MW-926-Q418         MW-926-Q418         GW         12/07/18         3,100         ND (0.5)         2         68         ND (2.5)         1.2         ND (0.5)         670         ND (0.5)         ND (1.0)         160 J         ND (1.0)           MW-60-125         N         MW-60-125-Q418         GW         12/06/18         980         1.3         0.74         600         ND (0.5)         ND (1.0)         ND (20)           MW-60BR-245         N         MW-60BR-245-Q418         GW         12/06/18         110         8.2         2.2         420         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_D-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-62-065-Q418		N	MW-5/-185-LF_D-Q418																
MW-59-100         N         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         70         ND (2.5)         1.3         ND (0.5)         700         ND (0.5)         ND (1.0)         200 J         ND (1.0)           MW-59-100         FD         MW-926-Q418         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         68         ND (2.5)         1.2         ND (0.5)         ND (0.5)         ND (1.0)		N																	
MW-59-100         FD         MW-926-Q418         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         68         ND (2.5)         1.2         ND (0.5)         670         ND (0.5)         ND (1.0)         160 J         ND (1.0)           MW-60-125         N         MW-60-125-Q418         GW         12/06/18         980         1.3         0.74         600         ND (0.5)         ND (20 J)           MW-60BR-245         N         MW-60BR-245-3V-Q418         GW         12/06/18         110         8.2         2.2         420         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_D-Q418         GW         12/06/18         20         7.3         2.2         410         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_S-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J		N								1.9									
MW-59-100         FD         MW-926-Q418         MW-59-100-Q418         GW         12/07/18         3,100         ND (0.5)         2         68         ND (2.5)         1.2         ND (0.5)         670         ND (0.5)         ND (1.0)         160 J         ND (1.0)           MW-60-125         N         MW-60-125-Q418         GW         12/06/18         980         1.3         0.74         600         ND (0.5)         ND (20)           MW-60BR-245         N         MW-60BR-245-3V-Q418         GW         12/06/18         110         8.2         2.2         420         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_D-Q418         GW         12/06/18         20         7.3         2.2         410         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_S-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J	MW-59-100	N	MW-59-100-Q418		GW	12/07/18	3,100		ND (0.5)	2	70	ND (2.5)	1.3	ND (0.5)	700	ND (0.5)	ND (1.0)	200 J	ND (1.0)
MW-60-125         N         MW-60-125-Q418         GW         12/06/18         980         1.3         0.74         600         ND (20)           MW-60BR-245         N         MW-60BR-245-3V-Q418         GW         12/06/18         110         8.2         2.2         420         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_D-Q418         GW         12/06/18         20         7.3         2.2         410         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_S-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J	MW-59-100	FD		MW-59-100-O418						2									
MW-60BR-245         N         MW-60BR-245-3V-Q418         GW         12/06/18         110         8.2         2.2         420         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_D-Q418         GW         12/06/18         20         7.3         2.2         410         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_S-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J									( ,			,		(/		(===/	`/		` -/
MW-60BR-245         N         MW-60BR-245-LF_D-Q418         GW         12/06/18         20         7.3         2.2         410         ND (20 J)           MW-60BR-245         N         MW-60BR-245-LF_S-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J				†				<del> </del>											
MW-60BR-245         N         MW-60BR-245-LF_S-Q418         GW         12/06/18         17         6.6         2.3         400         ND (100)           MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J		N																	
MW-61-110         N         MW-61-110-Q418         GW         12/13/18         430         4         2.3         730         ND (100)           MW-62-065         N         MW-62-065-Q418         GW         12/07/18         540         1.4         0.68         210         54 J		IN N		1				<del> </del>											
MW-62-065 N MW-62-065-Q418 GW 12/07/18 540 1.4 0.68 210 54 J		N N						<del> </del>											
MW-62-110   N  MW-62-110-Q418   GW   12/13/18   0.32     31     1.3   170     ND (53)																			
	MW-62-110	N	MW-62-110-Q418		GW	12/13/18	0.32	1		31			1.3		170			ND (53)	

Filtered:   Filtred:   Filtered:   Filtred:   Filtre:	ASSET
Description:   Heavaient   H	ASSLI
Description:   Desc	
Chescypton:   Lexavelent   Chroming   Lexavelent   Le	
All	
PA 218.6   CFIRM   Wife   Wi	Lead,
Sample   Date	Dissolved
Decidin   Type   Sample   Darent Sample   Matrix   Collected   Sample   Matrix   Sample   Matr	SW 6020
	ug/L
MW-62-190   N   MW-62-190-Q418   GW   12/13/18   ND (1-0)   8.6.1   2.4   360.1   ND (100)	
MW-62-190   FD   MW-917-Q418   MW-62-190-Q418   GW   12/13/18   460   1   4.0.1   2   660   3   ND (100)	
NW-63-065   N   NW-63-065-Q418   GW   12/12/18   D.95	
MW-64BR   N   MW-64BR-Q418   GW   12/13/18   ND (1.0)   4   1.6   370   92	
MW-65-160   N   MW-65-160-Q418   GW   12/05/18   160   0.75   0.92   270   250	
MW-65-160   N   MW-65-160-Q418   GW   12/05/18   160   0.75   0.92   270   250   250   MW-65-255   N   MW-65-25-Q418   GW   12/05/18   220   2.6   2.2   460   ND (20)   MW-66-165   N   MW-66-165-Q418   GW   12/05/18   480   1.3   0.655   250   23   MW-66-230   N   MW-66-230-Q418   GW   12/05/18   6,100   12   2.3   430   ND (100)   MW-66-230   N   MW-66-230-Q418   GW   12/05/18   6,100   12   2.3   430   ND (100)   MW-67-185-Q418   GW   12/05/18   1,800   0.91   0.64   680   ND (20)   MW-67-185-Q418   GW   12/05/18   1,800   0.91   0.64   680   ND (20)   MW-67-255-Q418   GW   12/05/18   2,900   2.9   1.3   120   150   MW-67-260   N   MW-67-260-Q418   GW   12/05/18   2,900   2.9   1.3   120   150   ND (100)   MW-68-180   N   MW-68-180-Q418   GW   12/05/18   2,000   2.8   0.655   350   ND (20)   MW-68-240-Q418   GW   12/05/18   2,000   2.8   0.655   350   ND (20)   MW-68-240-Q418   GW   12/05/18   2,000   2.8   0.655   350   ND (20)   MW-69-195   N   MW-69-195-Q418   GW   12/05/18   MD (1.0)   1.4   2.2   3   380   150   MW-70-195-Q418   GW   12/05/18   460   2.1   1.5   1.5   1.4   1.5   1.5   1.4   1.5   1.5   1.5   1.5   MW-70-195-Q418   GW   12/13/18   1.20   1.5   1.5   1.5   1.4   1.5	
MW-66-155   N   MW-66-158-Q418   GW   12/05/18   6100   12   2.3   430   ND (100)	
MW-66-155   N   MW-66-15C-Q418   GW   12/05/18   480   1.3   0.65   250   23	
MW-66-230	
MW-66BR-270   N   MW-66BR-270-Q418   GW   12/07/18   ND (1.0)   ND (0.1)   1.9   290   660 J	
MW-67-185   N   MW-67-185-Q418   GW   12/05/18   1,800   0.91   0.64   680   ND (20)	
MW-67-225   N   MW-67-225-Q418   GW   12/05/18   2,900   2.9   1.3   120   150	
MW-67-260   N   MW-67-260-Q418   GW   12/05/18   660   8.9   2.8   310   ND (100)	
MW-68-180         N         MW-68-180-Q418         GW         12/07/18         22,000         2.8         0.655         350         ND (20 3)           MW-68-240         N         MW-68-240-Q418         GW         12/05/18         2,000         1.7         2.2         550         ND (100)           MW-68-280         N         MW-69-195         N         MW-69-195-Q418         GW         12/05/18         ND (1.0)         1.4         2.2 J         380 J         150           MW-69-195         N         MW-69-195-Q418         GW         12/07/18         460         2.1         1.5 J         140         ND (20 3)           MW-70-105         N         MW-70-105-Q418         GW         12/13/18         120         4.1         0.62         87         34           MW-70-105-Q418         GW         12/13/18         120         4.1         0.62         87         34           MW-708R-225 N         MW-708R-225-Q418         GW         12/13/18         1,800         2.1         1.5         660         ND (20)           MW-71-035 N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-72-035 PD	
MW-68-240         N         MW-68-240-Q418         GW         12/05/18         2,000         1.7         2.2         550         ND (100)           MW-68BR-280         N         MW-68BR-280-Q418         GW         12/05/18         ND (1.0)         1.4         2.2 J         380 J         150           MW-69-195         N         MW-69-195-Q418         GW         12/07/18         460         2.1         1.5 J         140         ND (20 J)           MW-70105         N         MW-70-105-Q418         GW         12/13/18         120         4.1         0.62         87         34           MW-708R-225         N         MW-708R-225-Q418         GW         12/13/18         1,800         2.1         1.5         660         ND (20)           MW-708R-225         N         MW-708R-225-LF-Q418         GW         12/13/18         1,200         1.5         1.4         620         ND (20)           MW-71-035         N         MW-708R-225-LF-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-71-035         FD         MW-92B-Q418         GW         12/11/18         ND (1.0)         2.6 J         2.5         820         1,400 J <td></td>	
MW-68BR-280         N         MW-68BR-280-Q418         GW         12/05/18         ND (1.0)         1.4         2.2 J         380 J         150           MW-69-195         N         MW-69-195-Q418         GW         12/07/18         460         2.1         1.5 J         140         ND (20 J)           MW-70-105         N         MW-70-105-Q418         GW         12/13/18         120         4.1         0.62         87         34           MW-70BR-225         N         MW-70BR-225-3V-Q418         GW         12/13/18         1,800         2.1         1.5         660         ND (20)           MW-70BR-225 N         MW-70BR-225-LF-Q418         GW         12/13/18         1,200         1.5         1.5         660         ND (20)           MW-70BR-225 N         MW-70BR-225-LF-Q418         GW         12/13/18         1,200         1.5         1.4         620         ND (20)           MW-70BR-225 N         MW-70BR-225-W-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         ND (20)           MW-71-035 N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         820         1,400 J           MW-72BR-2008 N	
MW-69-195         N         MW-69-195-Q418         GW         12/07/18         460         2.1         1.5 J         140         ND (20 J)           MW-70-105         N         MW-70-105-Q418         GW         12/13/18         120         4.1         0.62         87         34           MW-70BR-225         N         MW-70BR-225-3V-Q418         GW         12/13/18         1,800         2.1         1.5         660         ND (20)           MW-70BR-225         N         MW-70BR-225-LF-Q418         GW         12/13/18         1,200         1.5         1.4         620         ND (20)           MW-71-035         N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-71-035         FD         MW-72-Q480-Q418         MW-71-035-Q418         GW         12/10/6/18         82         11         1.8         370         380           MW-72-R2-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         A.9         14         1.8         260         29           MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310 </td <td></td>	
MW-70-105         N         MW-70-105-Q418         GW         12/13/18         120         4.1         0.62         87         34           MW-70BR-225         N         MW-70BR-225-3V-Q418         GW         12/13/18         1,800         2.1         1.5         660         ND (20)           MW-70BR-225         N         MW-70BR-225-LF-Q418         GW         12/13/18         1,200         1.5         1.4         620         ND (20)           MW-71-035         N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-71-035         FD         MW-925-Q418         MW-71-035-Q418         GW         12/11/18         ND (1.0)         2.6 J         2.5         820         1,400 J           MW-72-080         N         MW-72-080-Q418         GW         12/06/18         82         11         1.8         370         38           MW-72BR-200         N         MW-72BR-200-JF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         <	
MW-70BR-225         N         MW-70BR-225-3V-Q418         GW         12/13/18         1,800         2.1         1.5         660         ND (20)           MW-70BR-225         N         MW-70BR-225-LF-Q418         GW         12/13/18         1,200         1.5         1.4         620         ND (20)           MW-71-035         N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-71-035         FD         MW-925-Q418         MW-71-035-Q418         GW         12/11/18         ND (1.0)         2.6 J         2.5         820         1,400 J           MW-72-080         N         MW-72-080-Q418         GW         12/06/18         82         11         1.8         370         38           MW-72BR-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         ND (1.0)         13         1.8         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)	
MW-70BR-225         N         MW-70BR-225-LF-Q418         GW         12/13/18         1,200         1.5         1.4         620         ND (20)           MW-71-035         N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-71-035         FD         MW-925-Q418         MW-71-035-Q418         GW         12/11/18         ND (1.0)         2.6 J         2.5         820         1,400 J           MW-72-080         N         MW-72-080-Q418         GW         12/06/18         82         11         1.8         370         38           MW-72BR-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         4.9         14         1.8         260         29           MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         310         ND (100)	
MW-71-035         N         MW-71-035-Q418         GW         12/11/18         ND (1.0)         3.4 J         2.5         810         550 J           MW-71-035         FD         MW-925-Q418         MW-71-035-Q418         GW         12/11/18         ND (1.0)         2.6 J         2.5         810         550 J           MW-72-080         N         MW-72-080-Q418         GW         12/06/18         82         11         1.8         370         38           MW-72BR-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         4.9         14         1.8         260         29           MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         310         ND (100)	
MW-71-035         FD         MW-925-Q418         MW-71-035-Q418         GW         12/11/18         ND (1.0)         2.6 J         2.5         820         1,400 J           MW-72-080         N         MW-72-080-Q418         GW         12/06/18         82         11         1.8         370         38           MW-72BR-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         4.9         14         1.8         260         29           MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         310         ND (100)	
MW-72-080         N         MW-72-080-Q418         GW         12/06/18         82         11         1.8         370         38           MW-72BR-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         4.9         14         1.8         260         29           MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         310         ND (100)	
MW-72BR-200         N         MW-72BR-200-3V-Q418         GW         12/06/18         4.9         14         1.8         260         29           MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         310         ND (100)	
MW-72BR-200         N         MW-72BR-200-LF_D-Q418         GW         12/06/18         ND (1.0)         13         2.2         310         ND (100)           MW-72BR-200         N         MW-72BR-200-LF_S-Q418         GW         12/06/18         ND (1.0)         14         2.4         310         ND (100)	
MW-72BR-200 N MW-72BR-200-LF_S-Q418 GW 12/06/18 ND (1.0) 14 2.4 310 ND (100)	
MW-73-080 N MW-73-080-Q418 GW 12/06/18 29 1.6 1 520 72	
MW-74-240         N         MW-74-240-Q418         GW         12/07/18         0.33         9         0.23         14         58 J           OW-03D         N         OW-03D-Q418         GW         12/04/18         7.6         1.3         210         ND (20)	
OW-03M N OW-03M-Q418 GW 12/04/18 15 0.97 110 160	
OW-03S N OW-03S-Q418 GW 12/04/18 17 0.17 72 31	
PGE-07BR N PGE-07BR-Q418 GW 12/13/18 ND (1.0) 2.3 520 50,000	
PGE-08 N PGE-08-Q418 GW 12/11/18 ND (1.0) 3.5 790 ND (100)	
PM-03 N PM-03-Q418 GW 12/17/18 9.3 ND (0.19) 85 ND (20)	
PM-04 N PM-04-Q418 GW 12/17/18 17 0.27 110 ND (20)	
PT2D N PT2D-Q418 12/12/18 12/12/18 12/12/18	
PT2M N PT2M-Q418 12/12/18 12/12/18	
PT2S N PT2S-Q418 12/12/18 12/18 1	
TW-01 N TW-01-Q418 GW 12/05/18 2,100 1.4 290 ND (20)	
TW-02D N TW-02D-Q418 GW 12/04/18 140 0.59 180 42	
TW-02S N TW-02S-Q418 GW 12/04/18 81 0.65 180 37	
TW-04 N TW-04-3V-Q418 GW 12/11/18 8.2	
TW-04 N TW-04-LF-Q418 GW 12/11/18 4.2	
TW-04 FD MW-918-Q418 TW-04-3V-Q418 GW 12/11/18 8.4	
TW-05 N TW-05-3V-Q418 GW 12/04/18 14	
TW-05 N TW-05-LF-Q418 GW 12/04/18 9.5	

	Docion & Concult	anov		Filtered:	F	F	F	F	F	F	F	F	F	F	F	F	F
	RCADIS Design & Consultr for natural and built assets	ancy		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
/ <del>-</del> \[	built assets																
·	and the same of th			Docarintion											Total		
GMP 2018-1	2 Sampling			Description:	Magnesium,	Manganese,	Mercury,	Molybdenum,	Nickel,	Potassium,	Selenium,	Silver,	Sodium,	Thallium,	Dissolved	Vanadium,	Zinc,
0 2020 2					Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Chromium	Dissolved	Dissolved
				Method:	SW 6020	SW 6020	EPA 7470A	SW 6020	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020
				Units:	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample			Date													
	Type Sample ID	Parent Sample															
MW-09	N MW-09-Q418		GW	12/12/18	33	2.1		5.8			5.2		480		150		
MW-10	N MW-10-Q418		GW	12/12/18	23	1.3	ND (0.2)	18	3.7		6.3	ND (0.5)	400	ND (0.5)	120	16	ND (10)
MW-11	N MW-11-Q418		GW	12/12/18	23	3.9 J		5.7			5.3		300		48		
MW-11	FD MW-903-Q418	MW-11-Q418	GW	12/12/18	25	5.0 J		5.6			4.7		320		50		
MW-12	N MW-12-Q418		GW	12/11/18	7.5	2.1	ND (0.2)	12	ND (1.0)		36	ND (0.5)	1,600	ND (0.5)	1,500	18	ND (10)
MW-13	N MW-13-Q418		GW	12/04/18	16	32	115 (0.5)	11	2.2		3.1	115 (0.5)	270	ND (0.5)	22	2.4	ND (10)
MW-14	N MW-14-Q418		GW	12/11/18	24	ND (0.5)	ND (0.2)	13	2.3		2.2	ND (0.5)	290	ND (0.5)	15	2.4	ND (10)
MW-15	N MW-15-Q418		GW	12/11/18	38	ND (0.5)		4			4.1		240		17		
MW-18	N MW-18-Q418		GW	12/06/18	12	ND (0.5)		6.6			3.5		190		18 780		
MW-19 MW-20-070	N MW-19-Q418	+	GW GW	12/10/18 12/11/18	14 16	1.1		24 37		F 0	5.6 7		370 320		780 1,700		
MW-20-070 MW-20-070	N MW-20-070-Q418 FD MW-905-Q418	MW-20-070-Q418	GW	12/11/18	16	ND (0.5) ND (0.5)		36		5.9 6	7.2		320 340		1,700		
MW-20-100	N MW-20-100-Q418	MVV-20-070-Q418	GW							6.8	6.3		340		1,500		
MW-20-100	N MW-20-130-Q418		GW	12/04/18 12/04/18	19 18	ND (0.5)		4.9 39		27	33		2,200		6,100		
MW-21	N MW-21-Q418		GW	12/12/18	72	17		81		27	17		2,200		1.2		
MW-21	EB MW-21-EB-Q418		GW	12/11/18	72	17		01			17		2,900		1.2		
MW-22	N MW-22-Q418		GW	12/11/18	300	5,700	ND (0.2)	31	2.2		ND (2.5)	ND (2.5)	5,700	ND (2.5)	ND (1.0)	ND (1.0)	ND (10)
MW-22	FD MW-906-Q418	MW-22-Q418	GW	12/04/18	290	6,100	ND (0.2)	31	2.1		ND (2.5)	ND (2.5)	5,400	ND (2.5)	ND (1.0)	ND (1.0)	ND (10)
MW-23-060	N MW-23-060-Q418	11W 22 Q+10	GW	12/11/18	3.4	5.8	ND (0.2)	25	2.1		5.9	ND (2.5)	3,100	ND (2.5)	40	ND (1.0)	ND (10)
MW-23-080	N MW-23-080-Q418		GW	12/11/18	ND (0.5)	6.4		46			5.3		3,400		3.2		
MW-24A	N MW-24A-Q418		GW	12/12/18	(0.0)	31	ND (0.2)	150	1.3		ND (0.5)	ND (0.5)	57.55	ND (0.5)	ND (1.0)	ND (1.0)	ND (10)
MW-24B	N MW-24B-Q418		GW	12/12/18		120	ND (0.2)	62	ND (1.0)		ND (2.5)	ND (0.5)		ND (0.5)	150	3.8	ND (10)
MW-24BR	N MW-24BR-Q418		GW	12/13/18	2.7	170	ζ- /	57	- 7		ND (2.5)	( /	3,200	( /	ND (1.0)		( - 7
MW-25	N MW-25-Q418		GW	12/10/18	26	ND (0.5)		8		8.9	9		230		100		
MW-25	FD MW-907-Q418	MW-25-Q418	GW	12/10/18	25	ND (0.5)		7.9		8.7	8.2		230		100		
MW-26	N MW-26-Q418		GW	12/07/18	35	ND (0.5)	ND (0.2)	32	5.5	13	39	ND (0.5)	630	ND (0.5)	2,300	7.8	ND (10)
MW-27-020	N MW-27-020-Q418		GW	12/05/18	23	18		6.2			ND (0.5)		86	•	ND (1.0)		
MW-27-020	EB MW-27-020-EB-Q418		GW	12/05/18													
MW-27-060	N MW-27-060-Q418		GW	12/05/18	21	310		4.3			ND (0.5)		88		ND (1.0)		
MW-27-060	EB MW-27-060-EB-Q418		GW	12/05/18													
MW-27-085	N MW-27-085-Q418		GW		45	63		19			ND (0.5)		2,000		ND (1.0)		
MW-27-085	EB MW-27-085-EB-Q418		GW														
MW-28-025	N MW-28-025-Q418		GW		28	2.4		4.5			1.1		100		ND (1.0)		
MW-28-025	EB MW-28-025-EB-Q418		GW	12/14/18													
MW-28-090	N MW-28-090-Q418		GW	12/14/18	34	400		23			ND (0.5)		950		ND (1.0)		
MW-28-090	EB MW-28-090-EB-Q418	ļ	GW	12/14/18		25.5		4-			ND (2 =)		25.5		ND (( a)		
MW-29	N MW-29-Q418	-	GW	12/10/18	36	230		13			ND (0.5)		220		ND (1.0)		
MW-29	EB MW-29-EB-Q418	1	GW	12/10/18	F.C. 7	222		63			1 7		2.400		ND (4.0)		
MW-30-030	N MW-30-030-Q418	1	GW		56 J	330		82			1.7		2,400		ND (1.0)		
MW-30-030	EB MW-30-030-EB-Q418	1	GW		17	220		4.4			ND (0 E)		100		2.0		
MW-30-050	N MW-30-050-Q418	MW 20 050 0410	GW	12/06/18	17	220		4.4			ND (0.5)		100		2.8 2.9		
MW-30-050 MW-31-060	FD MW-908-Q418	MW-30-050-Q418		12/06/18	17	220 0.95		4.3		7.2	ND (0.5)		100 560		400		
MW-31-135	N MW-31-060-Q418 N MW-31-135-Q418	+	GW GW		26 22	1.5		18 29		1.2	2.6 1.1		2,500		13		
MW-31-135 MW-32-020	N MW-31-135-Q418 N MW-32-020-Q418	+	GW		260	1.5		29			2.9		5,900		ND (1.0)		
MW-32-020	EB MW-32-020-EB-Q418		GW		200	100		200			۷.۶		3,300		IND (1.0)		
MW-32-035	N MW-32-035-Q418	+		12/04/18	170	880		14		16	ND (0.5)		1,500		ND (1.0)		
14144-25-032	14 111111-25-022-6410	Į.	I GW	12/04/10	1/0	000	l	I 14	ļ	10	(כ.ט) שאו	_	1,300		I ND (1.0)	ļ	l l

A I	Design & Consulta	ancy		Filtered:	F	F	F	F	F	F	F	F	F	F	F	F	F
	RCADIS Design & Consultate for natural and built assets	andy		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
<b>/-</b> \[	built assets																1
				Doccrintion											Total		
GMP 2018-	12 Sampling			Description:	Magnesium,	Manganese,	Mercury,	Molybdenum,	Nickel,	Potassium,	Selenium,	Silver,	Sodium,	Thallium,	Dissolved	Vanadium,	Zinc,
GIVII 2020	12 30mpmg				Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Chromium	Dissolved	Dissolved
				Method:	SW 6020	SW 6020	EPA 7470A	SW 6020	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020
				Units:	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample			Date												_	
Location ID	Type Sample ID	<b>Parent Sample</b>	Matrix	Collected													
MW-32-035	EB MW-32-035-EB-Q418		GW	12/04/18													
MW-33-040	N MW-33-040-Q418		GW	12/07/18	120	ND (0.5)		530			1.5		4,300		ND (1.0)		
MW-33-040	EB MW-33-040-EB-Q418		GW	12/07/18													
MW-33-090	N MW-33-090-Q418		GW	12/07/18	24	12		11			ND (0.5)		2,100		1.7		
MW-33-150	N MW-33-150-Q418		GW	12/07/18	34	3.6		50			0.9		3,100		6.2		
MW-33-210	N MW-33-210-Q418		GW	12/07/18	58	10		20			ND (2.5)		4,200		10		
MW-34-055	N MW-34-055-Q418		GW	12/05/18	24	79		5.4		5.1	ND (0.5)		99		ND (1.0)		
MW-34-055	FD MW-910-Q418	MW-34-055-Q418	GW	12/05/18	23	76		5.1		5.1	ND (0.5)		98		ND (1.0)		
MW-34-055	EB MW-34-055-EB-Q418		GW	12/05/18													
MW-34-080	N MW-34-080-Q418		GW	12/05/18	82	62		14		17	ND (0.5)		1,600		ND (1.0)		
MW-34-080	EB MW-34-080-EB-Q418		GW	12/05/18													
MW-34-100	N MW-34-100-Q418		GW	12/05/18	27	160		61		24	ND (0.5)		2,400		ND (1.0)		
MW-35-060	N MW-35-060-Q418		GW	12/10/18	29	ND (0.5)	ND (0.2)	9.8 J	ND (1.0)		1.4	ND (0.5)	1,300	ND (0.5)	20	2.4	ND (10 J)
MW-35-135	N MW-35-135-Q418		GW	12/10/18	31	7.1	ND (0.2)	24	1.9		1.4	ND (0.5)	2,200	ND (0.5)	25	1.6	ND (10)
MW-36-020	N MW-36-020-Q418		GW	12/06/18	97	140		29			ND (0.5)		950		ND (1.0)		
MW-36-040	N MW-36-040-Q418		GW	12/06/18	9.2	110		3.5			ND (0.5)		170		ND (1.0)		
MW-36-050	N MW-36-050-Q418		GW	12/06/18	18	240		3.6			ND (0.5)		100		ND (1.0)		
MW-36-070	N MW-36-070-Q418		GW	12/06/18	9.7	1,600		5.2			ND (0.5)		150		ND (1.0)		
MW-36-090	N MW-36-090-Q418		GW	12/06/18	32	93		12			ND (0.5)		910		ND (1.0)		
MW-36-090	FD MW-911-Q418	MW-36-090-Q418	GW	12/06/18	33	89		11			ND (0.5)		910		ND (1.0)		
MW-36-100	N MW-36-100-Q418		GW	12/06/18	32	390		19			ND (0.5)		1,300		6.8		
MW-37D	N MW-37D-Q418		GW	12/06/18	16	3.8		62			ND (0.5)		2,900		5		
MW-37S MW-38D	N MW-37S-Q418		GW	12/06/18	23 7	ND (0.5)		15			0.76 ND (0.5)		1,100 5,100		11 20		
MW-38D	N MW-38D-Q418		GW	12/12/18	,	34		91 92									
MW-38S	N MW-38D-SMT-Q418 N MW-38S-Q418		GW GW	12/12/18 12/12/18	7.3 5.1	43 44		31			ND (0.5) 3.4		5,100 310		21 4.3		$\overline{}$
MW-38S	N MW-38S-SMT-Q418		GW	12/12/18	5.1	40		30			3.3		320		4.7		
MW-39-040	N MW-39-040-Q418		GW	12/12/18	J.T	90		30			ა.ა		320		ND (1.0)		
MW-39-050	N MW-39-050-Q418		GW	12/06/18	17	190		4.2			ND (0.5)		110		ND (1.0)		
MW-39-060	N MW-39-060-Q418		GW	12/06/18	13	110		5.1			ND (0.5)		160		ND (1.0)		
MW-39-070	N MW-39-070-Q418			12/06/18	12	3		20			ND (0.5)		330		ND (1.0)		
MW-39-070	FD MW-912-Q418	MW-39-070-Q418	GW	12/06/18	12	3.3		22			ND (0.5)		340		ND (1.0)		
MW-39-080	N MW-39-080-Q418	25 3.3 2.120	GW		24	2.5		31			ND (0.5)		1,100		1.2		
MW-39-100	N MW-39-100-Q418		GW		32	9.5		8			ND (0.5)		2,700		70		
MW-40D	N MW-40D-Q418		GW		39	ND (0.5)		54			2.5		3,400		140		
MW-40D	N MW-40D-SMT-Q418		GW	12/12/18	41	31		42			ND (0.5)		3,100		ND (1.0)		
MW-40S	N MW-40S-Q418		GW			ND (0.5)		13			3.4		,		11		
MW-40S	N MW-40S-SMT-Q418		GW			5		30			6.6				29		
MW-41D	N MW-41D-Q418		GW	12/13/18	33	86		84			ND (2.5)		4,700		ND (5.0)		
MW-41M	N MW-41M-Q418		GW	12/11/18	31	3		27			0.72		3,100		14		
MW-41S	N MW-41S-Q418		GW		21	ND (0.5)		13			1.7		1,300		9.8		
MW-41S	FD MW-909-Q418	MW-41S-Q418	GW		21	ND (0.5)		13			1.7		1,400		10		
MW-42-030	N MW-42-030-Q418		GW			65		29			ND (0.5)				ND (1.0)		
MW-42-030	FD MW-913-Q418	MW-42-030-Q418	GW			65		29			ND (0.5)				ND (1.0)		
MW-42-055	N MW-42-055-Q418		GW		1.5	21		3.9			ND (0.5)		220		ND (1.0)		
MW-42-055	EB MW-42-055-EB-Q418		GW														
MW-42-065	N MW-42-065-Q418	1	GW	12/05/18	15	550		9.4			ND (0.5)		530		ND (1.0)		,

		A B C Docion & Consulto	nov		Filtered:	F	F	F	F	F	F	F	F	F	F	F	F	F
		ADIS Design & Consultate for natural and built assets	псу		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
	KU	A D																l
	10	built assets														Total		1
CN4D 2040	12 0	altin =			Description:	Magnesium,	Manganese,	Mercury,	Molybdenum,	Nickel,	Potassium,	Selenium,	Silver,	Sodium,	Thallium,	Dissolved	Vanadium,	Zinc,
GMP 2018-	·12 Sam	oling				Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Chromium	Dissolved	Dissolved
					Method:	SW 6020	SW 6020	EPA 7470A	SW 6020	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020
					Units:	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample				Date	IIIg/L	ug/L	ug/L	ug/L	ug/L	IIIg/L	ug/L	ug/L	IIIg/L	ug/L	ug/L	ug/L	ug/L
Location ID	Type	s Sample ID	Parent Sample	Matrix														1
MW-42-065		MW-42-065-EB-Q418	Tarent Sample		12/05/18													<del> </del>
MW-43-025	EB			GW		41	240		6.0			ND (0.E)		120		ND (1.0)		<del> </del>
MW-43-025	N EB	MW-43-025-Q418		GW GW	12/05/18 12/05/18	41	340		6.8			ND (0.5)		130		ND (1.0)		<del>                                     </del>
		MW-43-025-EB-Q418		GW		100	720		17			ND (0.E)		2 200		ND (1.0)		
MW-43-075	N	MW-43-075-Q418			12/05/18	190	730		17			ND (0.5)		2,200		ND (1.0)		
MW-43-075	EB	MW-43-075-EB-Q418		GW	12/05/18	120	670		20			ND (0.5)		2 700		ND (4.0)		
MW-43-090	N	MW-43-090-Q418		GW	12/05/18	120	670		29			ND (0.5)		3,700		ND (1.0)		<del> </del>
MW-43-090	EB	MW-43-090-EB-Q418		GW	12/05/18	40	170		0.7			ND (O.E)		240		ND (4.0)		<del> </del>
MW-44-070	N	MW-44-070-Q418		GW	12/05/18	12	170		8.7			ND (0.5)		240		ND (1.0)		<del></del>
MW-44-070	EB	MW-44-070-EB-Q418		GW	12/05/18		4.4		60			ND (0.5)		2 202				
MW-44-115	N	MW-44-115-Q418		GW	12/05/18	5.7	14		68			ND (0.5)		2,300		5.8		<del>                                     </del>
MW-44-125	N	MW-44-125-Q418	NOW 44 425 0445	GW	12/05/18	6.4	280		170			ND (0.5)		2,200		ND (1.0)		<b></b>
MW-44-125	FD	MW-914-Q418	MW-44-125-Q418	GW	12/05/18	6.4	260		170			ND (0.5)		1,800		ND (1.0)		<b>——</b>
MW-44-125	EB	MW-44-125-EB-Q418		GW	12/05/18													<b></b>
MW-46-175	N	MW-46-175-Q418		GW	12/13/18	3.4	25		190			ND (2.5)		4,400		12		
MW-46-205	N	MW-46-205-Q418		GW	12/13/18	2.7	9.8		370			ND (2.5)		5,100		ND (1.0)		
MW-47-055	N	MW-47-055-Q418		GW	12/10/18	27	ND (0.5)		7.4			1.6		580		21		
MW-47-115	N	MW-47-115-Q418		GW	12/10/18	33	12		26			1.3		3,000		15		
MW-47-115	FD	MW-915-Q418	MW-47-115-Q418	GW	12/10/18	34	12		25			1.2		3,100		15		
MW-48	N	MW-48-Q418		GW	12/13/18	32	19		10			ND (2.5)		3,800		ND (5.0)		
MW-49-135	N	MW-49-135-Q418		GW	12/10/18	29	280 J		42			1.3		2,800		2.1		
MW-49-135	EB	MW-49-135-EB-Q418		GW	12/10/18													
MW-49-275	N	MW-49-275-Q418		GW	12/10/18	6.1	430		300			ND (0.5)		5,900		8.7		
MW-49-275	EB	MW-49-275-EB-Q418		GW	12/10/18													
MW-49-365	N	MW-49-365-Q418		GW	12/10/18	8.8	310		220			ND (2.5)		9,100		27		
MW-49-365	EB	MW-49-365-EB-Q418		GW	12/10/18													
MW-50-095	N	MW-50-095-Q418		GW	12/10/18	14	1		17			0.91		1,000		14		
MW-50-200	N	MW-50-200-Q418		GW	12/10/18	31	3.7		48			2.5		4,400		3,700		
MW-51	N	MW-51-Q418		GW	12/10/18	20	2.4		54			15		2,800		3,800		
MW-52D	N	MW-52D-Q418		GW	12/04/18	19	310		69			ND (0.5)		4,500		ND (1.0)		
MW-52M	N	MW-52M-Q418		GW	12/04/18	30	250		27			ND (0.5)		3,300		ND (1.0)		
MW-52S	N	MW-52S-Q418		GW	12/04/18	350	820		8.7			0.86 J		2,000		ND (1.0)		
MW-53D	N	MW-53D-Q418		GW	12/04/18	14	1,400		190			ND (2.5)		5,900		ND (1.0)		
MW-53M	N	MW-53M-Q418		GW	12/04/18	29	470		67			ND (0.5)		4,000		ND (1.0)		
MW-57-070	N	MW-57-070-Q418		GW	12/07/18	22	ND (0.5)		3.4			3.6		96		420		
MW-57-185	N	MW-57-185-3V-Q418		GW	12/07/18	1.6	110		86			ND (0.5)		4,200		5.7		
MW-57-185	N	MW-57-185-LF_D-Q418		GW	12/07/18	0.68	17		87			ND (0.5)		4,100		5.9		
MW-57-185	N	MW-57-185-LF_S-Q418		GW	12/07/18	ND (0.5)	ND (0.5)		88			ND (0.5)		4,200		6		
MW-58BR	N	MW-58BR-Q418		GW	12/13/18	25 J	320		26			2.1		1,400		11		
MW-59-100	N	MW-59-100-Q418		GW	12/07/18	19	24 J	ND (0.2)	6.6	6		4.1	ND (0.5)	1,700	ND (0.5)	3,300	ND (1.0)	ND (10)
MW-59-100	FD	MW-926-Q418	MW-59-100-Q418	GW	12/07/18	18	16 J	ND (0.2)	6.1	5.8		3.7	ND (0.5)	1,600	ND (0.5)	3,100	ND (1.0)	ND (10)
MW-60-125	N	MW-60-125-Q418		GW	12/06/18	24	4.8		19			5.9		1,500		950		
MW-60BR-245	N	MW-60BR-245-3V-Q418		GW	12/06/18	6.1	12		57			2.5		3,600		120		
MW-60BR-245	N	MW-60BR-245-LF_D-Q418		GW	12/06/18	5.3	22		63			2.5		3,800		21		
MW-60BR-245	N	MW-60BR-245-LF_S-Q418		GW	12/06/18	6.8	23		64			2.9 J		3,700		17		
MW-61-110	N	MW-61-110-Q418		GW	12/13/18	24	220		23			ND (2.5)		3,500		460		
MW-62-065	N	MW-62-065-Q418		GW	12/07/18	22	1.3		14			4.4		1,200		610		
MW-62-110	N	MW-62-110-Q418		GW	12/13/18	7.3	250		42			ND (2.5)		2,000		3		
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	7	A Decign & Consulto	nev		Filtered:	F	F	F	F	F	F	F	F	F	F	F	F	F
	י זכ	ADIS Design & Consultar for natural and built assets	псу		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
	てし	huilt accete																1
	10	Duitt assets														Total		1
					Description:	Magnesium,	Manganese,	Mercury,	Molybdenum,	Nickel,	Potassium,	Selenium,	Silver,	Sodium,	Thallium,	Dissolved	Vanadium,	Zinc,
GMP 2018-1	L2 Samp	pling				Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Chromium	Dissolved	Dissolved
					11-4	SW 6020				SW 6010B								
					Method:		SW 6020	EPA 7470A	SW 6020		SW 6010B	SW 6020	SW 6020	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020
					Units:	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
	Sample				Date													1
	Туре		Parent Sample															
MW-62-190	N	MW-62-190-Q418		GW	12/13/18	15 J	1,100 J		36 J			ND (2.5)		4,000		ND (1.0 J)		
MW-62-190	FD	MW-917-Q418	MW-62-190-Q418	GW	12/13/18	22 J	220 J		24 J			ND (2.5)		3,500		470 J		
MW-63-065	N	MW-63-065-Q418		GW	12/12/18	25	10		19			0.78		1,300		1.7		
MW-64BR	N	MW-64BR-Q418		GW	12/13/18	15	980		68			ND (2.5)		2,900		ND (1.0)		
MW-65-160	N	MW-65-160-Q418		GW	12/05/18	32	180		150			11		530		220		
MW-65-225	N	MW-65-225-Q418		GW	12/05/18	21	57		46			3.3		2,800		220		
MW-66-165	N	MW-66-165-Q418		GW	12/05/18	45	ND (0.5)		5.9			24		490		500		
MW-66-230	N	MW-66-230-Q418		GW	12/05/18	6	19		74			9.5		4,300		6,200		
MW-66BR-270	N	MW-66BR-270-Q418		GW	12/07/18	20	300		3.5			ND (0.5)		4,000		ND (1.0)		
MW-67-185	N	MW-67-185-Q418		GW	12/05/18	140	ND (0.5)		9.7			410		940		2,000		
MW-67-225	N	MW-67-225-Q418		GW	12/05/18	5.5	6.6		62			83		1,400		3,000		
MW-67-260	N	MW-67-260-Q418		GW	12/05/18	3.9	120		75 J			ND (2.5)		4,300		710 J		
MW-68-180	N	MW-68-180-Q418		GW	12/07/18	34	ND (0.5)		41			17		650		24,000		
MW-68-240	N	MW-68-240-Q418		GW	12/05/18	23	28		23			3.9		3,700		1,900		
MW-68BR-280	N	MW-68BR-280-Q418		GW	12/05/18	3.7	120		26			ND (2.5)		4,800		ND (1.0)		
MW-69-195	NI NI	MW-69-195-Q418		GW	12/03/18	14	1.7		68			14		600		470		
MW-70-105	IN N	MW-70-105-Q418		GW	12/07/18	8.4	10		82			5.1		610		130		
MW-70-105 MW-70BR-225	IN N											ND (2.5)		2,500		1,900		
	IN N	MW-70BR-225-3V-Q418		GW	12/13/18	26	1.3		19			` '						
MW-70BR-225	- IN	MW-70BR-225-LF-Q418		GW	12/13/18	25	12		23			ND (2.5)		2,300		1,400		
MW-71-035	IN	MW-71-035-Q418	MW 74 025 0440	GW	12/11/18	81	1,600		17			ND (0.5)		3,100 J		ND (1.0)		
MW-71-035	FD	MW-925-Q418	MW-71-035-Q418	GW	12/11/18	82	1,600		16			ND (0.5)		2,400 J		1		
MW-72-080	N	MW-72-080-Q418		GW	12/06/18	7.1	42		84			0.98		3,300		73		
MW-72BR-200	N	MW-72BR-200-3V-Q418		GW	12/06/18	2.2	94		73			ND (0.5)		3,100		3.3		
MW-72BR-200	N	MW-72BR-200-LF_D-Q418		GW	12/06/18	3.3	130		82			ND (0.5)		3,400		ND (1.0)		
MW-72BR-200	N	MW-72BR-200-LF_S-Q418		GW	12/06/18	3.2	83		82			ND (0.5)		3,600		ND (1.0)		
MW-73-080	N	MW-73-080-Q418		GW	12/06/18	31	5.2		29			4.5		2,000		26		
MW-74-240	N	MW-74-240-Q418		GW	12/07/18	1.6	6.5		23			1.9		170		ND (1.0)		
OW-03D	N	OW-03D-Q418		GW	12/04/18	16	8.6		25			0.65 J		1,800		7.9		
OW-03M	N	OW-03M-Q418		GW	12/04/18	9.3	34		16			0.66		1,200		16		
OW-03S	N	OW-03S-Q418		GW	12/04/18	12	1.2		6			6		190		18		
PGE-07BR	N	PGE-07BR-Q418		GW	12/13/18	12	3,600		5.2			ND (2.5)		4,800		ND (5.0)		
PGE-08	N	PGE-08-Q418		GW	12/11/18	20	590		120			ND (0.5)		4,300		ND (1.0)		
PM-03	N	PM-03-Q418		GW	12/17/18	16	ND (0.5)		6.2			1.5		150		10		
PM-04	N	PM-04-Q418		GW	12/17/18	21	ND (0.5)		5.8			1.5		300		19		
PT2D	N	PT2D-Q418			12/12/18													
PT2M	N	PT2M-Q418			12/12/18													
PT2S	N	PT2S-Q418			12/12/18													
TW-01	N	TW-01-Q418		GW	12/05/18	19	ND (0.5)		15			13		1,500 J		2,100		
TW-02D	N	TW-02D-Q418		GW	12/04/18	35	7.1		9.9			2.5		650		110		
TW-02S	N	TW-02S-Q418		GW	12/04/18	35	90		11			2.6		790		86		
TW-04	N	TW-04-3V-Q418		GW	12/11/18		41	1	75			ND (2.5)		,,,,		8.1		
TW-04	N	TW-04-LF-Q418		GW	12/11/18		48		120			1.1				5		
TW-04		MW-918-Q418	TW-04-3V-Q418	GW			45		77			1				8.1		
TW-04		TW-05-3V-Q418	144 04-24-0410	GW			4.9	<del> </del>	28			0.92				14		
TW-05				GW			5.5		33			0.92 ND (0.5)				9.3		
I VV-UO	N	TW-05-LF-Q418		GW	12/04/18		5.5	<u> </u>	33			(0.5) טאו				9.3		

		A Design & Consult	anov		Filtered:	N	N	N	N	N	N	N	N	N	N
		ADIS Design & Consult for natural and built assets	ancy		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
	$\kappa \mathbf{U}$	built assets													
		TO DUILLUSCES			Doccrintion	Alkalinity,								Total	
GMP 2018-	-12 Samı	oling			Description:	Total as				Nitrate/Nitrite as	Specific		Total	Dissolved	Total Organic
J 2020		8				CaCO3	Bromide	Chloride	Fluoride	Nitrogen	Conductance	Sulfate	Chromium	Solids	Carbon
					Method:	SM 2320 B	EPA 300.0	EPA 300.0	EPA 300.0	SM 4500-NO3 F	EPA 120.1	EPA 300.0	EPA 200.8	SM 2540 C	SM5310C
					Units:	mg/L	mg/L	mg/L	mg/L	mg/L	uS/cm	mg/L	ug/L	mg/L	mg/L
	Sample	1			Date										-
Location ID	Type	Sample ID	<b>Parent Sample</b>	Matrix	Collected										
MW-09	N	MW-09-Q418		GW	12/12/18	120	ND (1.0)	780		1.8	3,100	260		1,800	ND (1.0)
MW-10	N	MW-10-Q418		GW	12/12/18	110	1.1	590		18	2,600	260		1,500	ND (1.0)
MW-11	N	MW-11-Q418		GW	12/12/18	89	ND (1.0)	560		5.6	2,300	180		1,400	ND (1.0)
MW-11	FD	MW-903-Q418	MW-11-Q418	GW	12/12/18	89	ND (1.0)	570		5.4	2,300	190		1,400	ND (1.0)
MW-12	N	MW-12-Q418		GW	12/11/18	120	1.2	1,800		5	6,800	460		3,700	
MW-13	N	MW-13-Q418		GW	12/04/18	72	ND (1.0)	620			2,300	150		1,500	
MW-14	N	MW-14-Q418		GW	12/11/18	64	ND (5.0)	750		3.5	2,700	130		1,600	
MW-15	N	MW-15-Q418		GW	12/11/18	68	ND (2.5)	570			2,300	170		1,400	
MW-18	N	MW-18-Q418		GW	12/06/18	88	ND (0.5)	350			1,500	98		910	
MW-19	N	MW-19-Q418		GW	12/10/18	90	ND (0.5)	520			2,200	180		1,200	
MW-20-070	N	MW-20-070-Q418		GW	12/11/18	100	ND (0.5)	370		2.8	1,900	240		1,100	
MW-20-070	FD	MW-905-Q418	MW-20-070-Q418	GW	12/11/18	100	ND (0.5)	360		4.7	1,900	240		1,100	
MW-20-100	N	MW-20-100-Q418		GW	12/04/18	130	0.66	450		6.4	2,100	240		1,300	
MW-20-130	N	MW-20-130-Q418		GW	12/04/18	85	ND (2.5)	3,000		8.8	11,000	990		6,400	
MW-21	N	MW-21-Q418		GW	12/12/18	630	3.2	2,800		0.22	12,000	1,900		7,600	
MW-21	EB	MW-21-EB-Q418		GW	12/11/18			_/=						7,000	
MW-22	N	MW-22-Q418		GW	12/04/18	760	ND (5.0)	8,700			26,000	2,300		18,000	
MW-22	FD	MW-906-Q418	MW-22-Q418	GW	12/04/18	750	ND (5.0)	8,900			26,000	2,300		18,000 J	
MW-23-060	N	MW-23-060-Q418	, == <b>\( \)</b>	GW	12/11/18	18	ND (5.0)	5,600			17,000	650		9,800	
MW-23-080	N	MW-23-080-Q418		GW	12/11/18	72	ND (5.0)	5,400			18,000	990		10,000	
MW-24A	N	MW-24A-Q418		GW	12/12/18		,	,		ND (0.1)	1,500			,	ND (1.0)
MW-24B	N	MW-24B-Q418		GW	12/12/18					0.96	20,000				ND (1.0)
MW-24BR	N	MW-24BR-Q418		GW	12/13/18	ND (5.0)	ND (1.0)	4,700		ND (0.1)	13,000	480		8,000	
MW-25	N	MW-25-Q418		GW	12/10/18	120	ND (2.5)	380		11	1,900	210		1,100	ND (1.0 J)
MW-25	FD	MW-907-Q418	MW-25-Q418	GW	12/10/18	120	ND (2.5)	370		10	1,900	210		1,100	ND (1.0 J)
MW-26	N	MW-26-Q418		GW	12/07/18	120	ND (2.5)	820		16	3,900	490		2,300	( /
MW-27-020	N	MW-27-020-Q418		GW	12/05/18	150	ND (1.0)	88		ND (0.1)	970	220		620	ND (1.0)
MW-27-020	EB	MW-27-020-EB-Q418		GW	12/05/18					ζ- /					` '/
MW-27-060	N	MW-27-060-Q418		GW	12/05/18	170	ND (0.5)	88	0.56	ND (0.1)	990	230		650	ND (1.0)
MW-27-060	EB	MW-27-060-EB-Q418		GW	12/05/18	-	(- ,			\					/
MW-27-085	N	MW-27-085-Q418		GW	12/05/18	260	ND (2.5)	2,600	1.7	ND (0.1)	9,400	800		5,400	ND (1.0)
MW-27-085	EB	MW-27-085-EB-Q418		GW	12/05/18		\	,			,			,	1
MW-28-025	N	MW-28-025-Q418		GW	12/14/18	220	ND (0.5)	100		ND (0.1)	1,200	260		770	
MW-28-025	EB	MW-28-025-EB-Q418		GW	12/14/18		` ′			, ,	,				
MW-28-090	N	MW-28-090-Q418		GW	12/14/18	340	ND (2.5)	1,300	1.8	ND (0.1)	5,400	390		3,000	
MW-28-090	EB	MW-28-090-EB-Q418		GW	12/14/18	-	` - /	,	-		,			,	
MW-29	N	MW-29-Q418		GW	12/10/18	430	ND (0.5)	180		ND (0.1)	1,600	140		960	
MW-29	EB	MW-29-EB-Q418		GW	12/10/18		(- ,			\ '	,	-			
MW-30-030	N	MW-30-030-Q418		GW	12/06/18	1,400	ND (2.5)	1,400		ND (0.1)	9,300	2,000		6,200	
MW-30-030	EB	MW-30-030-EB-Q418		GW	12/06/18	,	\/	,		(/	-,,,,,,,	,		-,	
MW-30-050	N	MW-30-050-Q418		GW	12/06/18	190	ND (0.5)	90		ND (0.1)	980	210		670	
MW-30-050	FD	MW-908-Q418	MW-30-050-Q418	GW	12/06/18	190	ND (0.5)	90		ND (0.1)	960	210		680	
MW-31-060	N	MW-31-060-Q418	1.2.0	GW	12/10/18	89	ND (2.5)	910		3.3	3,500	220		1,900	
MW-31-135	N	MW-31-135-Q418		GW	12/10/18	34	ND (2.5)	3,800			12,000	500		6,400	
MW-32-020	N	MW-32-020-Q418		GW	12/04/18	2,100	2.6	5,300			22,000	4,300		17,000	1
	EB	MW-32-020-EB-Q418		GW	12/04/18	_,		-,500			,	.,300		=: ,000	1
MW-32-020	1 113														

GMP 2018-1	$X \cap X$	for natural and	поу		, ,										
	TU!				Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
		built assets													
GMD 2019 1		1000 1000 1000 1000 1000 1000 1000 100			Description:	Alkalinity,								Total	
OIALL SOTO-T	.2 Samp	ling			Description	Total as				Nitrate/Nitrite as			Total	Dissolved	Total Organic
		_				CaCO3	Bromide	Chloride	Fluoride	Nitrogen	Conductance	Sulfate	Chromium	Solids	Carbon
					Method:	SM 2320 B	EPA 300.0	EPA 300.0	EPA 300.0	SM 4500-NO3 F	EPA 120.1	EPA 300.0	EPA 200.8	SM 2540 C	SM5310C
					Units:	mg/L	mg/L	mg/L	mg/L	mg/L	uS/cm	mg/L	ug/L	mg/L	mg/L
	Sample		D	M - 4 - 4	Date										
Location ID	Туре	Sample ID	Parent Sample												_
MW-32-035		MW-32-035-EB-Q418		GW	12/04/18	F00	1 -	4.000	12	0.24	10.000	2 100		10,000 1	ND (10.1)
MW-33-040 MW-33-040		MW-33-040-Q418 MW-33-040-EB-Q418		GW GW	12/07/18 12/07/18	500	1.5	4,900	13	0.24	19,000	2,100		10,000 J	ND (10 J)
MW-33-090		MW-33-090-Q418		GW	12/07/18	140	ND (2.5)	2,700	2	0.71	10,000	690		5,300	ND (1.0)
MW-33-150	N	MW-33-150-Q418		GW	12/07/18	56	ND (2.5)	4,500	2.3	0.71	15,000	750		8,000	ND (1.0)
MW-33-210		MW-33-210-Q418		GW	12/07/18	52	ND (2.5)	6,000	1.7	1.6	20,000	1,200		12,000 J	ND (1.0)
MW-34-055		MW-34-055-Q418		GW	12/07/18	150	ND (2.5) ND (0.5)	88	1./	ND (0.1)	970	230		670	ND (1.0)
MW-34-055		MW-910-Q418	MW-34-055-Q418	GW	12/05/18	150	ND (0.5)	87		ND (0.1)	970	230		660	
MW-34-055		MW-34-055-EB-Q418	1·1VV 3-1 033 Q+10	GW	12/05/18	150	ND (0.5)	- 07		ND (0.1)	570	230		000	
MW-34-080		MW-34-080-Q418		GW	12/05/18	280	ND (2.5)	2,300		ND (0.1)	8,400	640		4,900	1
MW-34-080		MW-34-080-EB-Q418		GW	12/05/18	200	140 (2.3)	2,500		140 (0.1)	5, 100	0.10		1,500	1
MW-34-100		MW-34-100-Q418		GW	12/05/18	180	ND (1.0)	3,100		ND (0.1)	11,000	950		6,100	+
MW-35-060	N	MW-35-060-Q418		GW	12/10/18	79	ND (2.5)	2,100		2.3	7,200	340		4,000	ND (1.0)
MW-35-135	N	MW-35-135-Q418		GW	12/10/18	43	ND (2.5)	3,200		2.3	11,000	820		6,100	ND (1.0)
MW-36-020		MW-36-020-Q418		GW	12/06/18	780	ND (1.0)	570			4,500	1,000		3,100	112 (210)
MW-36-040		MW-36-040-Q418		GW	12/06/18	250	ND (1.0)	85		ND (0.1)	1,000	170		670	
MW-36-050		MW-36-050-Q418		GW	12/06/18	190	ND (0.5)	90		(112)	960	210		670	
MW-36-070		MW-36-070-Q418		GW	12/06/18	180	ND (0.5)	88			1,000	210		660	
MW-36-090	N	MW-36-090-Q418		GW	12/06/18	290	ND (0.5)	1,200			5,000	470		2,900	
MW-36-090	FD	MW-911-Q418	MW-36-090-Q418	GW	12/06/18	290	ND (2.5)	1,200			4,900	460		3,000	
MW-36-100	N	MW-36-100-Q418		GW	12/06/18	270	ND (2.5)	1,800		ND (0.1)	6,600	590		4,000	
MW-37D	N	MW-37D-Q418		GW	12/06/18	34	ND (2.5)	4,300		0.48	13,000	630		7,900	
MW-37S		MW-37S-Q418		GW	12/06/18	49	ND (2.5)	2,000			6,700	320		3,900	
MW-38D	N	MW-38D-Q418		GW	12/12/18	30	ND (2.5)	7,200		ND (0.1)	21,000	720		13,000	
MW-38D	N	MW-38D-SMT-Q418		GW	12/12/18	29	ND (2.5)	7,200		ND (0.1)	21,000	710		13,000	
MW-38S	N	MW-38S-Q418		GW	12/12/18	150	0.7	310		3.5	1,600	150		920	
MW-38S	N	MW-38S-SMT-Q418		GW	12/12/18	150	0.71	310		0.18	1,600	150		920	
MW-39-040	N	MW-39-040-Q418		GW	12/06/18						1,100				1.5
MW-39-050	N	MW-39-050-Q418		GW	12/06/18	180	ND (0.5)	91			980	210		680	
MW-39-060		MW-39-060-Q418		GW	12/06/18	200	ND (1.0)	95		ND (0.1)	1,000	210		690	ND (1.0)
MW-39-070		MW-39-070-Q418	NAVA 20 070 0440	GW	12/06/18	210	ND (0.5)	280			1,700	250		1,000	
MW-39-070		MW-912-Q418	MW-39-070-Q418	GW	12/06/18	200	ND (0.5)	290			1,700	250		1,100	ND (4.0)
MW-39-080		MW-39-080-Q418		GW	12/06/18	270	ND (1.0)	1,400		ND (0.1)	5,600	490		3,200	ND (1.0)
MW-39-100		MW-39-100-Q418		GW	12/06/18	250	ND (2.5)	3,500		ND (0.1)	12,000	970		6,800	+
MW-40D		MW-40D-Q418		GW	12/12/18	50	ND (2.5)	5,000		10 ND (0.1)	15,000	700		8,900	
MW-40D		MW-40D-SMT-Q418		GW GW	12/12/18 12/12/18	62	ND (2.5)	4,800		ND (0.1)	15,000	640		8,900	+
MW-40S MW-40S		MW-40S-Q418		GW	12/12/18					3.5 8.1	2,600 1,700				+
MW-40S MW-41D		MW-40S-SMT-Q418 MW-41D-Q418	<del> </del>	GW	12/12/18	40	ND (2.5)	6,900		0.54	20,000	770		13,000	+
MW-41D MW-41M		MW-41D-Q418 MW-41M-Q418		GW	12/13/18	ND (5.0)	ND (2.5) ND (2.5)	4,800		0.54	15,000	580		8,300	+
MW-41S		MW-41S-Q418		GW	12/11/18	51	ND (2.5) ND (2.5)	1,900		2.1	6,700	380		3,600	+
MW-41S		MW-909-Q418	MW-41S-Q418	GW	12/07/18	50	ND (2.5)	1,900		2.1	6,700	380		3,600	
MW-42-030		MW-42-030-Q418	1.144 112 G410	GW	12/07/18	30	140 (2.3)	1,500		ND (0.1)	3,300	300		3,000	†
MW-42-030		MW-913-Q418	MW-42-030-Q418	GW	12/05/18					ND (0.1)	3,300				1
MW-42-055		MW-42-055-Q418	1 144 12 030 QTIO	GW	12/05/18	260	ND (1.0)	75		140 (0.1)	960	120		590	<u> </u>
MW-42-055		MW-42-055-EB-Q418		GW	12/05/18		(110)	, · · · · · · · · · · · · · · · · · · ·			300				
MW-42-065		MW-42-065-Q418		GW		280	ND (1.0)	490			2,500	280		1,400	

		A B I O Decign & Concultor		Filtered:	N	N	N	N	N	N	N	N	N	N	
	יוכ	ADIS Design & Consultar for natural and built assets	icy		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
/ <del>-</del> \[	てし	huilt assets													
	. •	VI Dunt absets			Descriptions	Alkalinity,								Total	
GMP 2018-1	I 2 Samr	nling			Description:	Total as				Nitrate/Nitrite as	Specific		Total	Dissolved	Total Organic
GIVII 2010 1	ız Janı	Jiiiig				CaCO3	Bromide	Chloride	Fluoride	Nitrogen	Conductance	Sulfate	Chromium	Solids	Carbon
					Method:	SM 2320 B	EPA 300.0	EPA 300.0	EPA 300.0	SM 4500-NO3 F	EPA 120.1	EPA 300.0	EPA 200.8	SM 2540 C	SM5310C
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	uS/cm	mg/L	ug/L	mg/L	mg/L	
	Sample	1		Date									-		
Location ID	Type	Sample ID	Parent Sample M	4atrix	Collected										
MW-42-065	EB	MW-42-065-EB-Q418		GW	12/05/18										
MW-43-025	N	MW-43-025-Q418		GW	12/05/18	270	ND (1.0)	120			1,400	330		1,000	
MW-43-025	EB	MW-43-025-EB-Q418		GW	12/05/18										
MW-43-075	N	MW-43-075-Q418		GW	12/05/18	500	ND (2.5)	3,000			11,000	1,100		6,300	
MW-43-075	EB	MW-43-075-EB-Q418		GW	12/05/18										
MW-43-090	N	MW-43-090-Q418		GW	12/05/18	200	ND (2.5)	5,500			18,000	1,100		11,000 J	
MW-43-090	EB	MW-43-090-EB-Q418		GW	12/05/18										
MW-44-070	N	MW-44-070-Q418		GW	12/05/18	210	ND (0.5)	230			1,600	230		950	
MW-44-070	EB	MW-44-070-EB-Q418		GW	12/05/18										
MW-44-115	N	MW-44-115-Q418		GW	12/05/18	120	0.61	2,900		ND (0.1)	10,000	830		5,700	
MW-44-125	N	MW-44-125-Q418		GW	12/05/18	180	ND (0.5)	1,600 J		ND (0.1)	5,800 J	390 J		3,400 J	
MW-44-125	FD	MW-914-Q418	MW-44-125-Q418	GW	12/05/18	220	ND (0.5)	530 J		ND (0.1)	2,500 J	260 J		1,500 J	
MW-44-125	EB	MW-44-125-EB-Q418		GW	12/05/18										
MW-46-175	N	MW-46-175-Q418		GW	12/13/18	42	ND (1.0)	5,800		0.91	18,000	890		10,000	
MW-46-205	N	MW-46-205-Q418		GW	12/13/18	49	ND (1.0)	6,800			20,000	900		12,000 J	
MW-47-055	N	MW-47-055-Q418		GW	12/10/18	73	ND (2.5)	1,100			3,900	210		2,200	ND (1.0)
MW-47-115	N	MW-47-115-Q418		GW	12/10/18	56	ND (2.5)	4,400			15,000	780		7,900	ND (1.0)
MW-47-115	FD	MW-915-Q418	MW-47-115-Q418	GW	12/10/18	57	ND (2.5)	4,400			15,000	780		8,000	ND (1.0)
MW-48	N	MW-48-Q418		GW	12/13/18	30	ND (2.5)	5,900			17,000	550		10,000	
MW-49-135	N	MW-49-135-Q418		GW	12/10/18	60	ND (2.5)	4,100			14,000	850		7,100	ND (1.0)
MW-49-135	EB	MW-49-135-EB-Q418		GW	12/10/18										
MW-49-275	N	MW-49-275-Q418		GW	12/10/18	37	ND (2.5)	8,200			26,000	1,400		16,000	ND (1.0)
MW-49-275	EB	MW-49-275-EB-Q418		GW	12/10/18										
MW-49-365	N	MW-49-365-Q418		GW	12/10/18	37	ND (2.5)	13,000			39,000	1,200		23,000	ND (1.0)
MW-49-365	EB	MW-49-365-EB-Q418		GW	12/10/18										
MW-50-095	N	MW-50-095-Q418		GW	12/10/18	56	ND (2.5)	1,600			5,600	280		3,000	ND (1.0)
MW-50-200	N	MW-50-200-Q418		GW	12/10/18	34	ND (2.5)	6,600			21,000	860		12,000	ND (1.0)
MW-51	N	MW-51-Q418		GW	12/10/18	79	ND (2.5)	4,100		6.9	13,000	680		7,300	ND (1.0)
MW-52D	N	MW-52D-Q418		GW	12/04/18	68	ND (2.5)	7,100			21,000	940		13,000	
MW-52M	N	MW-52M-Q418		GW	12/04/18	110	ND (2.5)	5,300			15,000	650		9,500	
MW-52S	N	MW-52S-Q418		GW	12/04/18	1,100	ND (2.5)	2,400			10,000	1,800		6,900	<u> </u>
MW-53D	N	MW-53D-Q418		GW	12/04/18	38	ND (2.5)	8,800			25,000	1,200		15,000	1
MW-53M	N	MW-53M-Q418		GW	12/04/18	47	ND (2.5)	6,400	ļ		19,000	780		11,000	<u> </u>
MW-57-070	N	MW-57-070-Q418		GW	12/07/18	75	ND (2.5)	730		7.1	2,700	83		1,500	ļ
MW-57-185	N	MW-57-185-3V-Q418		GW	12/07/18	53	ND (2.5)	5,900	ļ	0.21	19,000	720		11,000	<u> </u>
MW-57-185	N	MW-57-185-LF_D-Q418		GW	12/07/18	75	ND (2.5)	6,000		ND (0.1)	19,000	720		11,000	<u> </u>
MW-57-185	N	MW-57-185-LF_S-Q418		GW	12/07/18	92	ND (2.5)	5,900	ļ	ND (0.1)	19,000	720		10,000	<u> </u>
MW-58BR	N	MW-58BR-Q418		GW	12/13/18	39	ND (2.5)	2,600		0.78	8,100	520		5,100	<u> </u>
MW-59-100	N	MW-59-100-Q418		GW	12/07/18	110	ND (5.0)	3,000		1.4	10,000	600		5,600	<u> </u>
MW-59-100	FD	MW-926-Q418	MW-59-100-Q418	GW	12/07/18	120	ND (5.0)	2,900		1.4	10,000	590		6,000	ļ
MW-60-125	N	MW-60-125-Q418		GW	12/06/18	48	ND (5.0)	2,800		1.8	9,100	490		5,900	ļ
MW-60BR-245	N	MW-60BR-245-3V-Q418		GW	12/06/18	23	ND (2.5)	5,500		0.29	17,000	770		9,900	<b>_</b>
MW-60BR-245	N	MW-60BR-245-LF_D-Q418		GW	12/06/18	23	ND (2.5)	5,600		0.17	17,000	770		10,000	<u> </u>
MW-60BR-245	N	MW-60BR-245-LF_S-Q418		GW	12/06/18	24	ND (2.5)	5,600		0.18	17,000	760		10,000 J	<b>_</b>
MW-61-110	N	MW-61-110-Q418		GW	12/13/18	46	ND (5.0)	5,300		0.8	16,000	700		9,800	ļ
MW-62-065	N	MW-62-065-Q418		GW	12/07/18	110	ND (2.5)	1,700		4.5	6,600	410		3,600	<u> </u>
MW-62-110	N	MW-62-110-Q418		GW	12/13/18	92	ND (2.5)	2,800	1	ND (0.1)	9,000	530		5,300	

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		ADIS Design & Consultar for natural and built assets	ncv		Filtered:	N	N	N	N	N	N	N	N	N	N
	J( /	for natural and	,		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
	$\tau$	huilt accets													
	•	built assets				Alkalinity,								Total	
					Description:	Total as				Nitrate/Nitrite as	Chocific		Total	Dissolved	Total Organic
GMP 2018-	12 Samp	oling						611 11	-1	· '		G 16 1			
						CaCO3	Bromide	Chloride	Fluoride	Nitrogen	Conductance	Sulfate	Chromium	Solids	Carbon
					Method:	SM 2320 B	EPA 300.0	EPA 300.0	EPA 300.0	SM 4500-NO3 F	EPA 120.1	EPA 300.0	EPA 200.8	SM 2540 C	SM5310C
					Units:	mg/L	mg/L	mg/L	mg/L	mg/L	uS/cm	mg/L	ug/L	mg/L	mg/L
	Sample	!			Date										
Location ID	Type	Sample ID	<b>Parent Sample</b>	Matrix	Collected										
MW-62-190	N N	MW-62-190-Q418		GW	12/13/18	59 J	ND (2.5)	6,000		ND (0.1 J)	17,000	700		10,000	
MW-62-190	FD	MW-917-Q418	MW-62-190-Q418	GW	12/13/18	42 J	ND (5.0)	5,500		0.81 J	16,000	710		9,400	-
			MM-02-190-Q410							0.01 7					
MW-63-065	N	MW-63-065-Q418		GW	12/12/18	210	ND (2.5)	1,700		1	6,400	570		3,700	ļ
MW-64BR	N	MW-64BR-Q418		GW	12/13/18	69	ND (2.5)	4,400		ND (0.1)	13,000	590		7,800	
MW-65-160	N	MW-65-160-Q418		GW	12/05/18	110	ND (2.5)	890		7.7	3,900	530		2,400	
MW-65-225	N	MW-65-225-Q418		GW	12/05/18	67	ND (2.5)	4,400		1.9	14,000	830		7,900	
MW-66-165	N	MW-66-165-Q418		GW	12/05/18	97	ND (2.5)	910		16	3,800	450		2,400	
MW-66-230	N	MW-66-230-Q418		GW	12/05/18	30	ND (2.5)	6,200		6.3	20,000	1,100		10,000 J	
MW-66BR-270	N	MW-66BR-270-Q418		GW	12/07/18	ND (5.0)	ND (2.5)	6,000		ND (0.1)	18,000	260		10,000	
MW-67-185	N	MW-67-185-Q418		GW	12/05/18	74	7.8	2,100		47	7,900	560		5,000	+
							2.7			17					+
MW-67-225	N	MW-67-225-Q418		GW	12/05/18	140		1,100			6,300	1,200		3,700	
MW-67-260	N	MW-67-260-Q418		GW	12/05/18	ND (5.0)	ND (2.5)	5,800		0.31	18,000	820		10,000	
MW-68-180	N	MW-68-180-Q418		GW	12/07/18	99	ND (2.5)	860		6.9	4,500	910		2,900	
MW-68-240	N	MW-68-240-Q418		GW	12/05/18	63	ND (2.5)	5,200		2.3	17,000	890		9,600	
MW-68BR-280	N	MW-68BR-280-Q418		GW	12/05/18	13	ND (2.5)	7,100		ND (0.1)	22,000	700		12,000 J	
MW-69-195	N	MW-69-195-Q418		GW	12/07/18	190	ND (1.0)	550		18	3,500	660		2,200	
MW-70-105	N	MW-70-105-Q418		GW	12/13/18	87	ND (1.0)	880		3.7	3,200	250		1,900	
MW-70BR-225	N	MW-70BR-225-3V-Q418		GW	12/13/18	42	ND (5.0)	4,300		3.7	13,000	780		7,800	<del>                                     </del>
MW-70BR-225	N	MW-70BR-225-LF-Q418			12/13/18			3,800		3.1	12,000	720			
				GW		40	ND (5.0)							7,400	<u> </u>
MW-71-035	N	MW-71-035-Q418		GW	12/11/18	220	ND (5.0)	5,100		ND (0.1)	16,000	1,200		9,800	ļ
MW-71-035	FD	MW-925-Q418	MW-71-035-Q418	GW	12/11/18	210	ND (5.0)	5,000		ND (0.1)	16,000	1,200		9,900	
MW-72-080	N	MW-72-080-Q418		GW	12/06/18	59	ND (2.5)	4,800		0.5	15,000	650		8,100	
MW-72BR-200	N	MW-72BR-200-3V-Q418		GW	12/06/18	30	ND (2.5)	4,400		0.14	14,000	620		8,000	
MW-72BR-200	N	MW-72BR-200-LF_D-Q418		GW	12/06/18	25	ND (2.5)	5,100		ND (0.1)	16,000	690		9,000	
MW-72BR-200	N	MW-72BR-200-LF_S-Q418		GW	12/06/18	23	ND (2.5)	5,100		ND (0.1)	16,000	690		8,900	
MW-73-080	N	MW-73-080-Q418		GW	12/06/18	88	ND (2.5)	3,600		2.3	11,000	470		6,800	
MW-74-240	N	MW-74-240-Q418		GW	12/07/18	170	ND (0.5)	110		1.6	900	85		530	
OW-03D	N	OW-03D-Q418		GW	12/04/18	33	ND (0.5)	2,900		1.0	9,300	440		5,200	+
OW-03D	N NI			GW		50				<del> </del>		340		3,500	+
	IN	OW-03M-Q418			12/04/18		ND (0.5)	1,800		<del>                                     </del>	6,100				<del>                                     </del>
OW-03S	N	OW-03S-Q418		GW	12/04/18	73	ND (0.5)	340		-	1,500	82		880	<b></b>
PGE-07BR	N	PGE-07BR-Q418		GW	12/13/18	ND (5.0)	ND (10)	7,100			21,000	470		13,000	<u> </u>
PGE-08	N	PGE-08-Q418		GW	12/11/18	47	ND (5.0)	6,200		ND (0.1)	19,000	1,700		12,000	
PM-03	N	PM-03-Q418		GW	12/17/18	91	ND (1.0)	310		3.4	1,300	62	9.5	760	
PM-04	N	PM-04-Q418		GW	12/17/18	59	ND (1.0)	590		2.3	2,200	140	18	1,300	
PT2D	N	PT2D-Q418			12/12/18		, <i>,</i> ,				<u> </u>			•	ND (1.0)
PT2M	N	PT2M-Q418			12/12/18										ND (1.0 J)
PT2S	N	PT2S-Q418			12/12/18					<del> </del>					2.1
TW-01	N	TW-01-Q418		GW	12/05/18	110	ND (2.5)	2,200		8.5	8,000	700		4,600	2.1
										0.3					+
TW-02D	N	TW-02D-Q418		GW	12/04/18	150	ND (2.5)	1,400			5,100	330		3,100	
TW-02S	N	TW-02S-Q418		GW	12/04/18	130	ND (1.0)	1,300		1.9	4,600	310		2,700	
TW-04	N	TW-04-3V-Q418		GW	12/11/18						21,000				ND (1.0)
TW-04	N	TW-04-LF-Q418		GW	12/11/18						23,000				ND (1.0)
TW-04	FD	MW-918-Q418	TW-04-3V-Q418	GW	12/11/18						21,000				ND (1.0)
TW-05	N	TW-05-3V-Q418	,	GW	12/04/18						13,000				
TW-05	N	TW-05-LF-Q418		GW	12/04/18					<del> </del>	13,000				<del>                                     </del>
1 ** 03		1 02 - 6110	1	J V V	12/01/10		l	1		1	10,000				1

	A DIC Design &		Filtered:	F	F	F	F	F	F	F	F	F	F	F	N	N	N	N	N	N		
	K(	ADIS Design & for natura built asse	land		Lab:	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
		built asse	ts		Description:			_		_						Total	Alkalinity,					Total
						Hexavalent	Arsenic,	Boron,	Calcium,	Iron,	Magnesium,	Manganese,	Molybdenum,	Selenium,	Sodium,	Dissolved	Total as			Specific		Dissolved
GMP 2018-12 AZ Sampling						Chromium	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Chromium	CaCO3	Bromide	Chloride	Conductance	Sulfate	Solids
					Method:	EPA 218.6	SW 6020	SW 6010B	SW 6010B	SW 6010B	SW 6020	SW 6020	SW 6020	SW 6020	SW 6010B	SW 6020	SM 2320 B	EPA 300.0	EPA 300.0	EPA 120.1	EPA 300.0	SM 2540 C
			Units:	ug/L	ug/L	mg/L	mg/L		mg/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L	mg/L	UMHOS/CM	mg/L	mg/L		
	Sample				Date																	
Location ID	Туре	Sample ID	Parent Sample	Matrix	Collected																	
MW-54-085	N	MW-54-085-Q418		GW	12/13/18	ND (0.1 J)	ND (2.0)	1.59	177	LL	92.4	804	ND (5.0)	ND (3.0)	1,950	ND (2.0)	148 J	0.422	2,850 J	9,890 J	535 J	5,550 J
MW-54-085	EB	MW-54-085-EB-Q418		GW	12/13/18	ND (0.1 J)																
MW-54-140	N	MW-54-140-Q418		GW	12/13/18	ND (0.5 J)	ND (2.0)	2.29	149	LL	16	ND (2.0)	ND (5.0)	ND (3.0)	2,800	ND (2.0)	98.8 J	0.377	3,870 J	12,900 J	575 J	7,590 J
MW-54-140	EB	MW-54-140-EB-Q418		GW	12/13/18	ND (0.1 J)																
MW-54-195	N	MW-54-195-Q418		GW	12/13/18	ND (0.5 J)	ND (2.0)	2.74	132	LL	4.95	266	116	ND (3.0)	4,550	ND (2.0)	58.9 J	0.468	6,040 J	19,600 J	873 J	11,600 J
MW-54-195	EB	MW-54-195-EB-Q418		GW	12/13/18	ND (0.1 J)																
MW-55-045	N	MW-55-045-Q418		GW	12/13/18	ND (0.1 J)		0.544	33.6	LL	8.09	802	42.1	ND (0.3)	244	ND (0.2)	161 J	0.236	261 J	1,360 J	81.2 J	749 J
MW-55-045	EB	MW-55-045-EB-Q418		GW	12/13/18	ND (0.1 J)																
MW-55-120	N	MW-55-120-Q418		GW	12/13/18	8.29 J		1.54	70	LL	1.57	ND (2.0)	ND (5.0)	ND (3.0)	1,650	ND (2.0)	69.9 J	0.244	2,470 J	7,750 J	262 J	4,260 J
MW-56D	N	MW-56D-Q418		GW	12/13/18	ND (0.5 J)		2.43	437	LL	87.2	624	ND (5.0)	ND (3.0)	4,630	ND (2.0)	136 J	1.12	8,110 J	21,100 J	1,370 J	13,500 J
MW-56D	FD	MW-916-Q418	MW-56D-Q418	GW	12/13/18	ND (0.5 J)		2.59	429	LL	87.6	631	ND (5.0)	ND (3.0)	4,890	ND (2.0)	135 J	1.09	7,450 J	21,000 J	1,310 J	14,100 J
MW-56M	N	MW-56M-Q418		GW	12/13/18	ND (0.5 J)		1.58	390	LL	105	651	ND (5.0)	ND (3.0)	2,760	ND (2.0)	454 J	0.924	4,680 J	13,200 J	886 J	9,220 J
MW-56S	N	MW-56S-Q418		GW	12/13/18	ND (0.1 J)		1.86	148	LL	58.3	655	ND (5.0)	ND (3.0)	1,210	ND (2.0)	536 J	0.726	1,430 J	5,560 J	498 J	3,430 J

	Filtered:	F	F	F	F	F	F	F	N	N	N	N	N	N	N			
ARCADIS Design & Consultancy for natural and built assets  Description:  Description:					ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET	ASSET
						C-1-i	T	N4	M	C - diam-	Total	Alkalinity,		Nitona ta /Nitonita		Ci6-		Total
					Hexavalent	Calcium,	Iron,	Magnesium,	Manganese,	Sodium,	Dissolved	Total as		Nitrate/Nitrite		Specific		Dissolved
					Chromium	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Chromium	CaCO3	Chloride	as Nitrogen	pН	Conductance	Sulfate	Solids
PMP 2018-12 Sa	ampling			Method:	EPA 218.6	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.8	EPA 200.7	EPA 200.8	SM 2320 B	EPA 300.0	SM 4500-NO3 F	SM4500-HB	EPA 120.1	EPA 300.0	SM 2540 C
				Units:	ug/L	mg/L	ug/L	mg/L	ug/L	mg/L	ug/L	mg/L	mg/L	mg/L	PHUNITS	uS/cm	mg/L	mg/L
	Sample			Date														
Location ID	Type	Sample ID	Matrix	Collected														
PE-01	N	PE-01-1218	GW	12/4/2018	0.68	140	ND (20)	38	310	330	2.9	260	900	0.36	7.3	3,700	350	2,300
TW-03D	N	TW-03D-1218	GW	12/4/2018	480	210	ND (20)	30	15	1,500	490	160	2,100	2.0	7.2	7,600	520	4,300

$\triangle AR$	$\bigcap \Delta \Gamma$	Design & Consultance for natural and built assets	У		Filtered: Lab:	F ASSET	N ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET	F ASSET
							Oxygen and Deuterium	Arsenic,	Barium,	Boron,	Calcium,	Iron,	Magnesium,	Manganese,	Molybdenum,	Potassium,	Selenium,	Sodium,
RMP 2018-11 S	SURFACEW	'AT			Mathadi	Chromium EPA 218.6	Stable CFIRM	Dissolved SW 6020	Dissolved SW 6020	Dissolved SW 6010B	Dissolved SW 6010B	Dissolved SW 6010B	Dissolved SW 6020	Dissolved SW 6010B	Dissolved SW 6010B	Dissolved SW 6010B	Dissolved SW 6020A	Dissolved SW 6010B
					Method: Units:	ug/L	0/00	ua/L	ua/L	mg/L		ua/L	mg/L	ua/L	ug/L	mg/L	ug/L	mg/L
						ug/L	0/00	ug/L	ug/L	HIG/L	mg/L	ug/L	IIIg/L	ug/L	ug/L	IIIg/L	ug/L	HIIG/L
Location ID	Sample Type	Sample ID	Parent Sample	Matrix	Date Collected													
AmbientBlank	AB	AmbientBlank-1-Q418		SURFACEWAT	12/11/18	ND (0.2)												
AmbientBlank	AB	AmbientBlank-2-Q418		SURFACEWAT	12/11/18	ND (0.2)												
AmbientBlank	AB	AmbientBlank-3-Q418		SURFACEWAT	12/12/18	ND (0.2)												
C-BNS	N	C-BNS-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.3	120			ND (20)		ND (0.5)	5.0		1.7	T
C-CON-D	N	C-CON-D-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.4	110			ND (20)		ND (0.5)	4.6		1.5	
C-CON-D	FD	MW-921-Q418	C-CON-D-Q418	SURFACEWAT	12/12/18	ND (0.2)		2.5	110			ND (20)		ND (0.5)	4.5		1.5	
C-CON-S	N	C-CON-S-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.5	110			ND (20)		ND (0.5)	4.5		1.4	
C-I-3-D	N	C-I-3-D-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.4	120			ND (20)		ND (0.5)	5.2		1.7	T
C-I-3-S	N	C-I-3-S-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.3	120			ND (20)		ND (0.5)	5.1		1.7	
C-MAR-D	N	C-MAR-D-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.5	140			52		220	5.8		1.2	
C-MAR-S	N	C-MAR-S-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.5	130			100		86	5.1		1.6	
C-MAR-S	FD	MW-922-Q418	C-MAR-S-Q418	SURFACEWAT	12/12/18	ND (0.2)		2.6	130			97		87	5.2		1.7	T
C-NR1-D	N	C-NR1-D-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.4	110			ND (20)		ND (0.5)	4.7		1.6	T
C-NR1-S	N	C-NR1-S-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.7	120			ND (20)		ND (0.5)	4.9		1.6	
C-NR3-D	N	C-NR3-D-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.4	120			ND (20)		ND (0.5)	4.8		1.4	
C-NR3-S	N	C-NR3-S-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.4	110			ND (20)		ND (0.5)	4.7		1.6	
C-NR4-D	N	C-NR4-D-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.5	110			ND (20)		ND (0.5)	4.7		1.6	
C-NR4-S	N	C-NR4-S-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.5	110			ND (20)		ND (0.5)	4.8		1.8	
C-R22A-D	N	C-R22A-D-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.3	120			ND (20)		ND (0.5)	5.5		1.5	
C-R22A-S	N	C-R22A-S-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.4	120			ND (20)		ND (0.5)	5.3		1.7	
C-R22A-S	FD	MW-924-Q418	C-R22A-S-Q418	SURFACEWAT	12/11/18	ND (0.2)		2.1	120			ND (20)		ND (0.5)	5.1		1.7	
C-R27-D	N	C-R27-D-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.1	120			ND (20)		ND (0.5)	4.9		1.8	
C-R27-S	N	C-R27-S-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.3	120			ND (20)		ND (0.5)	5.3		1.8	
C-TAZ-D	N	C-TAZ-D-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.4	120 J			ND (20)		ND (0.5)	5.5		1.8	T
C-TAZ-S	N	C-TAZ-S-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.3	120			ND (20)		ND (0.5)	5.4		1.5	
R-19	N	R-19-Q418		SURFACEWAT	12/12/18	ND (0.2)		2.6	110			ND (20)		1.4	4.7		1.9	
R-28	N	R-28-Q418		SURFACEWAT	12/11/18	ND (0.2)	-12.38	2.2	120	ND (0.13)	71	ND (20)	25	1.0	5.2	4.7	1.4	94
R-28	FD	MW-923-Q418	R-28-Q418	SURFACEWAT	12/11/18	ND (0.2)	-12.49	2.3	120	ND (0.13)	71	27	25	0.8	5.0	4.7	1.6	94
R63	N	R63-Q418		SURFACEWAT	12/11/18	ND (0.2)		2.2	120			ND (20)		ND (0.5)	5.1		1.8	
SW1	N	SW1-Q418		SURFACEWAT	12/11/18	ND (0.2)												
SW2	N	SW2-Q418		SURFACEWAT	12/11/18	ND (0.2)												

ARCADIS	Design & Consultancy for natural and built assets
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RMP 2018-11 S		built assets			Description :	Total Dissolved Chromium	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrate/Nitrite as Nitrogen	рН	Specific Conductance	Sulfate	Total Dissolved Solids	Total Iron	Total suspended solids (TSS)
					Method: Units:	SW 6020 ug/L	SM 2320 B mg/L	EPA 300.0 mg/L	EPA 300.0 mg/L	SM 4500-NO3 F mg/L	SM4500-HB PHUNITS	EPA 120.1 uS/cm	EPA 300.0 mg/L	SM 2540 C mg/L	SW 6010B ug/L	SM 2540 D mg/L
	Sample				Date	ug/ L	1119/ =	mg/ L	1119/ =	1119/ L	111011115	us/cm	1119/ =	1119/ =	ug/ L	mg/ L
Location ID	Type	Sample ID	Parent Sample	Matrix	Collected											
AmbientBlank	AB	AmbientBlank-1-Q418		SURFACEWAT	12/11/18											
AmbientBlank	AB	AmbientBlank-2-Q418		SURFACEWAT	12/11/18											
AmbientBlank	AB	AmbientBlank-3-Q418		SURFACEWAT	12/12/18											
C-BNS	N	C-BNS-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.31	8.2	970			ND (20)	ND (10)
C-CON-D	N	C-CON-D-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.22	8.4	920			ND (20)	ND (10)
C-CON-D	FD	MW-921-Q418	C-CON-D-Q418	SURFACEWAT	12/12/18	ND (1.0)				0.23	8.4	920			ND (20)	ND (10)
C-CON-S	N	C-CON-S-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.47	8.4	920			ND (20)	ND (10)
C-I-3-D	N	C-I-3-D-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.27	8.3	930			ND (20)	ND (10)
C-I-3-S	N	C-I-3-S-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.27	8.3	920			ND (20)	ND (10)
C-MAR-D	N	C-MAR-D-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.18	8.1	1,400			3,200	88
C-MAR-S	N	C-MAR-S-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.22	8.1	1,200			2,600	51
C-MAR-S	FD	MW-922-Q418	C-MAR-S-Q418	SURFACEWAT	12/12/18	ND (1.0)				0.2	8.0	1,200			2,300	45
C-NR1-D	N	C-NR1-D-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.26	8.4	920			ND (20)	ND (10)
C-NR1-S	N	C-NR1-S-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.24	8.4	930			ND (20)	ND (10)
C-NR3-D	N	C-NR3-D-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.29	8.4	920			ND (20)	ND (10)
C-NR3-S	N	C-NR3-S-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.29	8.4	920			ND (20)	ND (10)
C-NR4-D	N	C-NR4-D-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.3	8.4	930			ND (20)	ND (10)
C-NR4-S	N	C-NR4-S-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.3	8.4	930			ND (20)	ND (10)
C-R22A-D	N	C-R22A-D-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.27	8.2	940			ND (20)	ND (10)
C-R22A-S	N	C-R22A-S-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.28	8.2	930			ND (20)	ND (10)
C-R22A-S	FD	MW-924-Q418	C-R22A-S-Q418	SURFACEWAT	12/11/18	ND (1.0)				0.28	8.2	950			24	ND (10)
C-R27-D	N	C-R27-D-Q418	_	SURFACEWAT	12/11/18	ND (1.0)				0.28	8.2	930			ND (20)	ND (10)
C-R27-S	N	C-R27-S-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.27	8.2	940			ND (20)	ND (10)
C-TAZ-D	N	C-TAZ-D-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.29	8.2	950			ND (20)	ND (10)
C-TAZ-S	N	C-TAZ-S-Q418		SURFACEWAT	12/11/18	ND (1.0)				0.27	8.3	920			20	ND (10)
R-19	N	R-19-Q418		SURFACEWAT	12/12/18	ND (1.0)				0.22	8.4	930			ND (20)	ND (10)
R-28	N	R-28-Q418		SURFACEWAT	12/11/18	ND (1.0)	130	ND (0.5)	88	0.29	8.3	960	210	580	28	ND (10)
R-28	FD	MW-923-Q418	R-28-Q418	SURFACEWAT	12/11/18	ND (1.0)	130	ND (0.5)	87	0.28	8.2	950	210	600	27	ND (10)
R63	N	R63-Q418		SURFACEWAT	12/11/18	ND (1.0)		` ′		0.28	8.2	930			ND (20)	ND (10)
SW1	N	SW1-Q418		SURFACEWAT	12/11/18	ND (1.0)					8.0	980			, ,	, ,
SW2	N	SW2-Q418		SURFACEWAT	12/11/18	ND (1.0)					7.0	980				†

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